المراجعة رقم (1)

الترم الاول

Assessment on Unit 1

First: Choose the correct answer:

a If $12 \times 34 = 408$, then $408 \div 12 = $ ....   (12 or 34 or 408 or 36)

b If $574 = 41 \times 14$, then $580 \div 41 = 14$, and the remainder is ....

(14 or 41 or 6 or 16)

c A number that, if divided by 8, the quotient will be 16, and the remainder is 3.   (131 or 128 or 19 or 24)

d .... is a factor of all numbers.   (0 or 1 or 2 or 3)

e 7, 5, 3, and 2 are .... numbers. (even or odd or prime or otherwise)

f The greatest common factor of any two prime numbers is ....

(0 or 1 or their sum or their product)

g The least common multiple of two prime numbers is ....

(the greatest number or 1 or their sum or their product)

h $6 \times (7 + 5) = $ ....

($(6 \times 7) + (6 \times 5)$ or $6 \times 7 + 5$ or $6 \times 7 \times 5$ or $(6 + 7) \times (6 + 5)$)

i $(2 \times 8) + (2 \times 3) = $ ....

($2 \times 8 \times 3$ or $2 + (8 \times 3)$ or $2 \times (8 + 3)$ or $2 \times 8 \times 2 \times 3$)

j $1\frac{3}{4} + 2\frac{1}{2} = $ ....   ($4\frac{1}{4}$ or $3\frac{1}{4}$ or $3\frac{4}{6}$ or 4)

Second: Complete the following:

a If $1{,}050 \div 12 = 87$, and the remainder is 6, then $12 \times 87 = $ ....

b If $351 \div 27 = 13$, then $13 \times 27 = $ ....

c The prime number has .... factor(s).

d All prime numbers are odd numbers, except .... is an even number.

e .... is the smallest prime number.

f Any two numbers are relatively prime numbers if their greatest common factor is ....

g The least common multiple of any two prime numbers is ....

h $8 \times (2 + 7) = (\text{......} \times \text{......}) + (\text{......} \times \text{......})$

i $3\dfrac{1}{5} + \text{...............} = 5\dfrac{1}{2}$

Third: **Answer the following:**

1 Find the result:

a $6,527 \div 9 = \text{......}$

b $2,592 \div 24 = \text{......}$
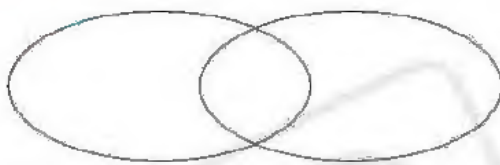
c $5\dfrac{3}{8} + 2\dfrac{5}{6} = \text{...............................}$

d $7\dfrac{1}{4} - 3\dfrac{3}{5} = \text{...............................}$

2 A compound consists of 840 housing units, each building within this compound consists of 15 housing units.

How many buildings in this compound?

....

3 Find the GCF and LCM using Venn diagram for numbers 24 and 16:

GCF = ...

LCM = ...

24 = ...

16 = ...

4 Complete the following using a Venn diagram:

   a The two numbers represented in the Venn diagram

     are .... and ....

   b The common prime factors of the two numbers

     are ....

   c The GCF for the two numbers is ....

   d The LCM for the two numbers is ....

   e Are the two numbers relatively prime numbers? .... (Yes or No)
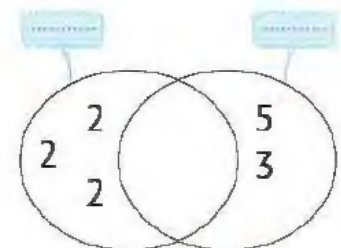
5 Adel has 18 red roses and 12 white roses. He wants to distribute them in equal bouquets, so that each bouquet contains the same number of roses of each color. What is the largest number of bouquets Adel can make and how many red and white roses are in each bouquet?

6 Hany has 25 pounds. He bought a piece of cake for $9\frac{1}{2}$ pounds and a chocolate drink for $5\frac{1}{4}$ pounds. How much money is left with Hany?

Assessment on Unit 2

First: Choose the correct answer:

(a) −7 is to the right of .... on the number line.

$$(-8 \text{ or } 8 \text{ or } -6 \text{ or } 6)$$

(b) .... is neither a positive number nor a negative number.

$$(0 \text{ or } 1 \text{ or } -1 \text{ or } 10)$$

(c) The largest non-negative integer is .... $(-1 \text{ or } 1 \text{ or } 100 \text{ or } 0)$

(d) (−5.7) is a/an ....

(natural number or integer or rational number or counting number)

(e) The absolute value of "0" is a/an ....

(counting number or natural number or negative integer or odd number)

(f) The additive inverse of $-\dfrac{2}{3}$ is .... $\left(1\dfrac{1}{2} \text{ or } -\dfrac{3}{1} \text{ or } \dfrac{3}{2} \text{ or } \dfrac{2}{3}\right)$

(g) −0.3 in the form $\dfrac{a}{b}$ is .... $\left(-\dfrac{3}{10} \text{ or } -\dfrac{1}{3} \text{ or } -\dfrac{3}{1} \text{ or } \dfrac{10}{3}\right)$

(h) The rational number represented on the corresponding number line is ....

```
←——+——+——+——+——•——+——→
   -7  -6  -5  -4  -3  -2
```

$$(-3.4 \text{ or } -4.3 \text{ or } 3.4 \text{ or } 4.3)$$

(i) | −3.7 | = ... $(3.7 \text{ or } -3.7 \text{ or } 37 \text{ or } -73)$

(j) The absolute value of "zero" is .... $(10 \text{ or } 0 \text{ or } -1 \text{ or } 1)$

Second: Complete the following:

(a) The integer that expresses (The temperature is 7 below zero) is ....

(b) The next number to "−1" is ....

(c) The additive inverse of 11.5 is ....

d The smallest positive integer is ....

e The number and its opposite have the .... distance from zero, but in two .... directions on a number line.

f The rational number "−7.2" lies between the two integers .... and ....

g All natural numbers are .... numbers and .... numbers.

h The rational number $-\dfrac{3}{2}$ in the decimal form is ....

i If $|a| = 8$, then $a = $ .... or ....

j If $|5.6| = n$, then $n = $ ....

Third:

1 **Complete using (< , = , or >):**

a −3.8 .... −1.8

b $|-2.5|$ .... $|-3.6|$

c $\left|\dfrac{2}{5}\right|$ .... $|-0.4|$

d $-3\dfrac{7}{8}$ .... $\left|-3\dfrac{5}{8}\right|$

2 **Arrange the following numbers in a descending order:**

$$0.55 \quad , \quad -\dfrac{3}{5} \quad , \quad \left|-\dfrac{1}{2}\right| \quad , \quad -\dfrac{1}{4} \quad , \quad |0.8|$$

.... , ... , ... , ... , ...

Accumulative Assessments on Units 1 – 2

Assessment 1

First: **Choose the correct answer:**

a If $6,688 = 19 \times 352$, then $6,694 \div 19 = 352$, and the remainder is ....

(14 **or** 41 **or** 6 **or** 16)

b The greatest common multiple of 9 and 8 is .... (9 **or** 8 **or** 1 **or** 72)

c The prime factors of 20 are ....

(2 x 10 **or** 5 x 4 **or** 2 x 2 x 5 **or** 1 x 20)

d All negative numbers are .... zero.   (< **or** = **or** > **or** ≥)

e -25 .... -12 (< **or** = **or** > **or** ≥)

Second: **Complete the following:**

a $6 \times (7 + 5) = (...... \times ......) + (...... \times ......)$

b .... comes just before -1.

c .... is the opposite number of "10".

d The integer that expresses (The value of the loss is 20 LE) is ....

e If $7 = | a |$, then $a = ...$ or ....

Third: **Answer the following:**

a If the total price of 25 books is 2,825 pounds, then what is the price of one book?

....

b Ahmed wants to plant 45 sunflower plants and 81 corn plants in his garden. If he put the same number of plants in each row, what is the greatest number of rows can he make?

....

....

....

| = ... |
| = ... |
| GCF = ... |

Assessment 2

First: Choose the correct answer:

a The rational number represented on the corresponding number line is ....
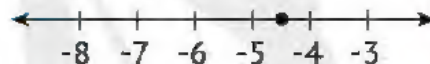
$$(4\frac{2}{2} \text{ or } 5\frac{2}{3} \text{ or } -4\frac{2}{3} \text{ or } -5\frac{2}{3})$$

b 12 and .... are relatively prime numbers.   (16 or 15 or 35 or 20)

c The opposite of 6 > ....   (−5 or 5 or −7 or 7)

d $\dfrac{3}{5}$ .... $-\dfrac{5}{3}$ (> or = or < or ⩾)

e − 4 is to the right of .... on the number line.   (−5 or 5 or −3 or 3)

Second: Complete the following:

a The additive inverse of .... is itself.

b $-\dfrac{5}{4}$ = ...   (In the decimal form)

c .... × (............... + ...) = (2 × 8) + (2 × 6)

d .... is a number whose prime factors are 3, 2, 7.

e $3\dfrac{1}{5}$ + ... = $8\dfrac{1}{2}$

Third: Answer the following:

1 Find the results :

a $3\dfrac{5}{8} + 4\dfrac{1}{6}$ = ...

b $4\dfrac{1}{2} - 1\dfrac{3}{4}$ = ...

2 Complete the following using the opposite Venn diagram.

a The two numbers are .... and ....

b The GCF is ....   **c** The LCM is ....
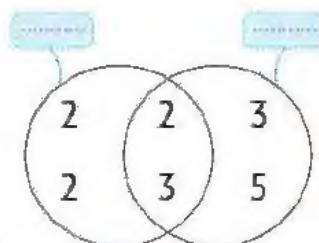
Assessment on Unit 3

First: Choose the correct answer:

a The algebraic term "5ab" is from .... factors. (1 or 2 or 3 or 4)

b The number of terms that makes up the algebraic expression "3 x y + 2 x – 5" is .... term. (2 or 3 or 4 or 5)

c The absolute term in " 3m + 2" is .... (2 or 3 or m or 3 m)

d Subtracting the number 3 from twice the number y = ...

(3 – 2y or 2 (y – 3) or 3y – 2 or 2y – 3)

e Samah is now 25 years old. How old was she h years ago?

(25 – h or h – 25 or 25 – h or 25h)

f 5 × 5 × 5 = ... (5 × 3 or 5^3 or 3^5 or 5 + 3)

g 3^2 + 4 _____ 9 + 2^2 (> or = or < or ≤)

h If the price of one book is 15 pounds, what is the price of b number of books? (15 b or 15 – b or b – 15 or b + 15)

i The value of (12 – x^3) ÷ 2 if x = 2 is .... (8 or 10 or 2 or 6)

j The order that is used to find the value of 2 + 3 (m^2 – 5) if m = 3 is ....

(putting exponents in their simplest form, subtraction, multiplication, addition

or addition, exponents, subtraction, multiplication

or putting the exponents in the simplest form, addition, subtraction, multiplication

or multiplication, addition, exponents in simplest form, subtraction)

Second: Complete the following:

a If the sum of two integers is S and one of them is 10, then the other number is ....

b In 7 x y, the coefficient is ....

c Like terms for " 3n + 3 + 2n " are ....

d Twice of subtracting 5 from the number w = ...

e The verbal form for "$3x - 5$" is ....

....

f Ahmed's car consumes "n" liters of fuel to travel a distance of 100 km. How many liters does the car need to travel a distance of 600 km? ....

g The value of "$4 \times (y^3 - 7)$" If $y = 3$ is ....

h $3 \times 3 \times 3 \times 3 \times 3 \times 3 =$ ....

i $5^{.......} = 1$

j $4^{.......} = 4$

Third: Answer the following:

1 Moataz saved "n" pounds per day for 9 days, then he got 20 pounds from his father.

a Write an algebraic expression that expresses the amount that Moataz has now: ....

b Complete using the preceding algebraic expression:

① The number of terms of an algebraic expression is ....

② The coefficients are ....

③ The constants are ....

2 Find the value of each of the following two algebraic expressions using the numbers shown, then indicate if these expressions are equivalent or not :

	$2x + 1$	$5x - 4$	Equal or Not?
If $x = 5$			
If $x = 3$			

From the previous table, we find that the two algebraic expressions are .... (Equivalent or Not).

Accumulative Assessments
on Units 1-3

Assessment 1

First: **Choose the correct answer:**

(a) A number that, if divided by 9, the quotient is 15, and the remainder is 3, is _____ (135 or 128 or 138 or 27)

(b) _____ is the opposite of -12 (12 or 12 or 1 or 2)

(c) The algebraic term "$\frac{3}{4} x$" has _____ a factor. (1 or 2 or 3 or 4)

(d) If we subtract 9 from the number x , the result is ($x + 9$ or $x - 9$ or $9 - x$ or $9 x$)

(e) $1^5 = $ ... ... (1×5 or $1 + 5$ or 1 or 0)

Second: **Complete the following:**

(a) If $2,000 \div 51 - 39$ and the remainder is 11, then $51 \times 39 - $ _____ .

(b) The absolute term in the algebraic expression "5b + 3.2" is _____ .

(c) A number whose prime factors are 2, 3, 5 is _____ .

(d) Salah saves Z pounds per day. How much does he save in a week? _____ .

(e) In _____ 4 is called the base and 2 is called the exponent.

Third: **Answer the following:**

(a) Find the value of "$4a - 15 \div 3$" [If a × 2.5]

(b) Arrange the following numbers in a descending order:

$$0.8 \quad , \quad -\frac{1}{5} \quad , \quad \frac{1}{2} \quad , \quad \frac{3}{4} \quad , \quad |\, 0.25\, |$$

The order: _____ , _____ , _____ , _____ , _____ .

(c) Bassem runs one kilometer in 15 minutes.
Write a mathematical expression that expresses the number of kilometers that Bassem runs in "t" minutes.

Assessment 2

First: **Choose the correct answer:**

  a If $36 \times 28 = 1{,}008$, then $1{,}008 \div 28 =$.   (12 or 34 or 408 or 36)

  b In "$-8\ a$" the algebraic factor is   .   (a or 8 or 8a or -8)

  c $|-3.7| =$ (3.7 or -3.7 or 37 or -37)

  d $2 \times 2 \times 2 =$ (2^3 or 3^2 or 2×3 or $2 + 3$)

  e $2^3 + 2^3 =$ (2^6 or 4^3 or 2^4 or 4^6)

Second: **Complete the following:**

  a .... is the smallest prime number.

  b The smallest positive integer is   .

  c The number of terms in the algebraic expression $5y - 25z$ is   .

  d If the price of a pen is 8 LE then the price of x pens is   .

  e The verbal form for the algebraic expression $3b + 4$ is   .

Third: **Answer the following:**

1 Follow the order of performing operations to find:

  a $4^2 + (2^4 - 1) \times 2$ **b** $(2^3 + 6) \div (3^2 - 2)$

    $=$ $=$

    $=$ $=$

    $=$ $=$

2 Wael collected $3\frac{3}{4}$ kilograms of dates and gave $2\frac{1}{5}$ kilograms to his friend.

How many kilograms are left with Wael?

Assessment on Unit 4

First: **Choose the correct answer:**

a If $a + 3 = 7$, then $a =$ _____ . (7 or 3 or 10 or 4)

b If $b = 6$, then b _____ $= 2$. (4 or 8 or 2 or 3)

c If $5x = 40$, then $x =$ _____ . (35 or 45 or 8 or 200)

d If $y = 6$, then $\dfrac{y}{} = 2$. (3 or 8 or 12 or 4)

e The inequality that represents all values "greater than 4" is _____ .
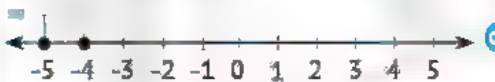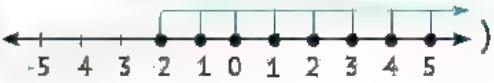
$$(x > 4 \text{ or } x < 4 \text{ or } x \leqslant 4 \text{ or } x \geqslant 4)$$
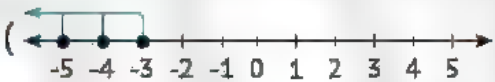
f The inequality that represents all values

"less than or equal to –2" is _____ .

$$(x > -2 \text{ or } x < -2 \text{ or } x \leqslant -2 \text{ or } x \geqslant -2)$$

g The inequality that represents all negative numbers are _____ .

$$(x > 0 \text{ or } x < 0 \text{ or } x \leqslant 0 \text{ or } x \geqslant 0)$$

h Which of the following is a solution to the inequality $x < -6$?

$$(5 \text{ or } -5 \text{ or } -7 \text{ or } 7)$$

i The inequality represented by

the corresponding graph is _____ .

$$(x > 4 \text{ or } x < 4 \text{ or } x \leqslant 4 \text{ or } x \geqslant 4)$$

j The graph expressing the inequality "$x < -3$" is _____ .

Second: **Complete all of the following:**

a If $x + 7 = 9$, then $x =$ _____ .   **b** If $4m = 20$, then $m =$ _____ .

c If $b = 12$, then $b -$ _____ $= 8$.   **d** If $d = 3$, then _____ $\times d = 18$.

e If k − 6, then 2 − .... ÷ k.

f The equation that represents the corresponding model is ....

g The inequality that represents all values "less than −6" is ....

h The inequality that represents all values "greater than or equal to 3" is ....

i The inequality tht represents all positive integers are ....

j The similarities between the graphs of the two algebraic expressions $x = 9$ and $x \geqslant 9$ are ....

Third: Answer the following:

1 Find the value of the variable in each of the following equations:

a $x - 5 = 4$

= ....

= ....

b $4x = 24$

= ....

= ....

2. Use the following number line to write inequalities:

a

....
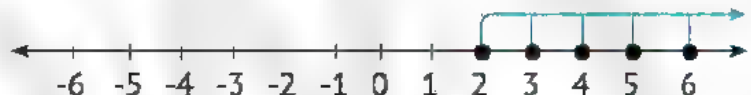
b

Accumulative Assessments on Units 1–4

Assessment 1

First: **Choose the correct answer:**

a .... is a factor of all numbers. (0 or 1 or 2 or 3)

b The number −3 is located to the right of the number ....
on the number line. (−4 or 4 or −2 or 2)

c In the algebraic term "−5 a b" the coefficient is ....

(a or b or 5 or −5)

d If $5x = 15$, then $3x =$ .... (3 or 12 or 9 or 15)

e Which of the following is a solution to the inequality "$x > -2$" ?

(−5 or −3 or −2 or 0)

Second: **Complete the following:**

a .... is the smallest prime number.

b If $b = |-7|$, then $b =$ ....

c Ahmed is now "y" years old, how old was he 3 years ago? ....

d If $b = 6$, then $b + ... = 8$.

e The inequality that represents all values greater than or equal to −8 is ....

Third: **Answer the following:**

Write the equation that represents each of the following models, then find the value of x:

a

Equation: ....

$x =$ ....

b

Equation: ....

$x =$ ....

Assessment 2

First: **Choose the correct answer:**

ⓐ The least common multiple of any two prime numbers is   .

(the greater number **or** 1 **or** their sum **or** their product)

ⓑ The integer that expresses (The depth of a well of 8 meters) is   .

$(-8$ **or** 8 **or** $\dfrac{1}{8}$ **or** $-\dfrac{1}{8})$

ⓒ The number of terms that make up the algebraic expression "5 + 2 a b" is _____ .

(2 **or** 3 **or** 4 **or** 5)

ⓓ If Basim is "x" years old now, how old will he be after 5 years?

$(x - 5$ **or** $x + 5$ **or** $5 \div x$ **or** $5x)$

ⓔ If "a + 3 = 7", then 2 a = _____ .

(10 **or** 4 **or** 8 **or** 20)

Second: **Complete the following:**

ⓐ The LCM of the two relatively prime numbers is   .

ⓑ $8 \times (\; .. \; + \; .. \;) = (\; ... \; \times 9) + (\; ... \; \times 2)$

ⓒ The number "-3" is the opposite of the number   .

ⓓ The absolute term in the algebraic expression $7x + 1$ is   .

ⓔ The inequality that represents all values less than -6 is   .

Third: **Answer the following:**

1 A school has 604 boys and 521 girls, it is intended to divide the boys and girls equally into 25 classes in the school.

How many students will be in each class?

2 Solve each of the following equations:

ⓐ $x - 4 - 8$

ⓑ $3y = 24$

= _____

= _____

= _____

= _____

Assessment on Unit 5

First: **Choose the correct answer:**

a In the equation "a = 3 b", the independent variable is   .

(a **or** b **or** 3 **or** 3b)

b In the equation "m + 5 – r", the dependent variable is   .

(m **or** 5 **or** r **or** 5m)

c If the independent variable is the number of studying hours, then the dependent variable is the   . (exam result **or** school uniform color **or** means of access to school **or** number of class students)

d If the dependent variable is the number of training hours, then the independent variable is   . (the number of days you go to the club **or** the distance between the club and the house **or** the color of your training clothes **or** the height of the house)

e The equation that expresses the relationship "subtract from 6" is   .

($y = x - 6$ **or** $y = 6 - x$ **or** $y - x = 6$ **or** $y = 6x$)

f The equation that expresses the relationship "add 5 then multiply by 2" is   . ($y = 2x + 5$ **or** $y = 2 (x + 5)$ **or** $y = 5x + 2$ **or** $y = (x + 2) \times 5$)

g The relation that represents the equation "$y = (x - 8) \div 3$" is   .

(divide by 8, then subtract 3 **or** subtract 8, then divide by 3 **or** divide by 3, then subtract 8 **or** subtract 3, then divide by 8)

h If $y = 2x + 3$, x = 2.5 then y =   .   (5 **or** 11 **or** 8 **or** 5.5)

i If $y = 2 (x + 4)$, x = 5 , then y =   .   (11 **or** 29 **or** 18 **or** 14)

j If $y = 5x - 8$, x = 8 , then y =   .   (32 **or** 2 **or** 30 **or** 12)

Second: **Complete the following:**

ⓐ In the equation "8 a = b" the independent variable is   .

ⓑ If the number of cars in the garage depends on the size of the garage, then:

   1 the independent variable is   .

   2 the dependent variable is   .

ⓒ If the independent variable is what Ahmed saves every day and the dependent variable is what he saves in one week, then

   depends on ....

ⓓ If the rule is "add 2.4", then

   1 the equation is   .   **2** if x = 4, then y =   .

ⓔ If the rule is "divide by 4" then

   1 the equation is ....   **2** if x – 16, then y –   .

ⓕ If the equation is y = (15 + x) ÷ 4, then :

   1 the rule is ....   **2** if x = 5, then y =   .

Third: **Sameh trains for 6 hours divided into 4 days equally:**

Complete the following table, where the variable "x" represents the number of days, and the variable "y" represents the duration of training in hours. Write an equation that shows the relationship between the variables "x" and "y", and then represent it graphically.

x	1	2	3	4
Y				

──── The equation ────
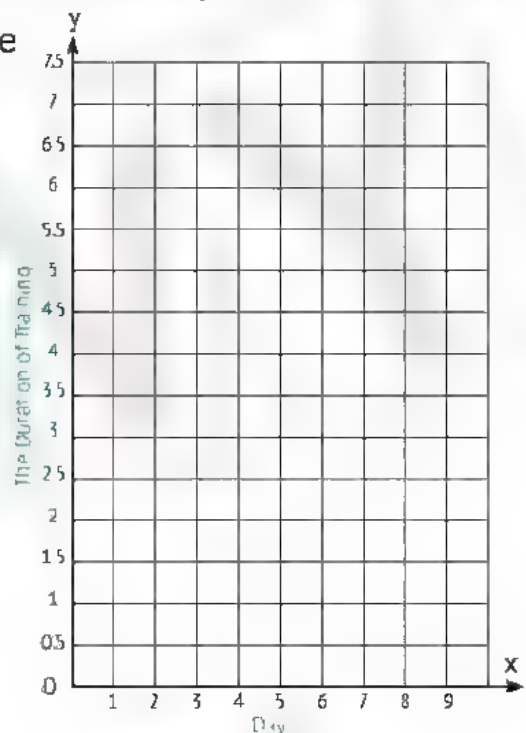
Assessment 1

First: **Choose the correct answer:**

ⓐ The GCF of 4 and 15 is _____ . (0 or 1 or 4 or 5)

ⓑ The greatest non-negative integer is _____ . (1 or 0 or -1 or -2)

ⓒ The integer that expresses: "Hossam moved three steps back" is _____ .

(-3 or 3 or $x + 3$ or $x - 3$)

ⓓ If the side length of a square is s cm, then the perimeter of the square = _____ .

($s + 4$ or $s - 4$ or $4s$ or $s \div 4$)

ⓔ If $3^x = 27$, then the value of $x =$ _____ . (2 or 3 or 9 or 24)

Second: **Complete the following:**

ⓐ $6^2 \div 3^2 \times 2 =$ _____ .

ⓑ If $15 = 8 + a$, then $3a =$ _____ .

ⓒ If $y = 2x + 4$, $x = 3$ then $y =$ _____ .

ⓓ The inequality that represents all values "to the left of the number 2" on the number line is _____ .

ⓔ The relationship that expresses the equation "$y = 5x$" is _____ .

Third: **Answer the following:**

1. Diaa saves 150 pounds every month, so if the amount he saves in (x) months is (y) pounds, then:

   ⓐ The equation that represents this situation is _____ .

   ⓑ The independent variable is _____ .

   ⓒ The dependent variable is _____ .

   ⓓ What Diaa saves in a year is _____ .

2. The owner of a juice shop owns 5,950 paper cups. If he uses them within 17 days equally, how many cups did he use every day?

Assessment 2

First: **Choose the correct answer:**

ⓐ 8 and .... are relatively prime numbers.

(6 or 15 or 20 or 12)

ⓑ An integer between 2 and –2 is ....

(1 or 3 or 3 or 4)

ⓒ The number m plus 18 and the result divided by 3 =

$(m + \dfrac{18}{3}$ or $\dfrac{m}{3} + 18$ or $3 \div (m + 18)$ or $(m + 18) \div 3)$

ⓓ 3^4 = ... $(4 \times 4 \times 4$ or $3 \times 3 \times 3 \times 3$ or 3×4 or $3 + 4)$

ⓔ If $y = 27$, then $\dfrac{y}{} = 9$ (18 or 3 or 27 or 9)

Second: **Complete the following:**

ⓐ Prime numbers less than 10 are ....

ⓑ .... $\times (3 + 6) = (9 \times$ .... $) + (9 \times$ .... $)$

ⓒ Integers between –3 and 2 are ....

ⓓ Opposite numbers on a number line have .... absolute values (same - different)

ⓔ The value of the expression "$3 \times (y^2 - 5)$" when $y = 3$ is ....

Third: **Answer the following:**

Omar manufactures hats, producing 10 hats per day, the following table represents the number of working days (x) and the number of hats produced (y). Represent it graphically.

x	2	4	6	8
Y	20	40	60	80

The equation
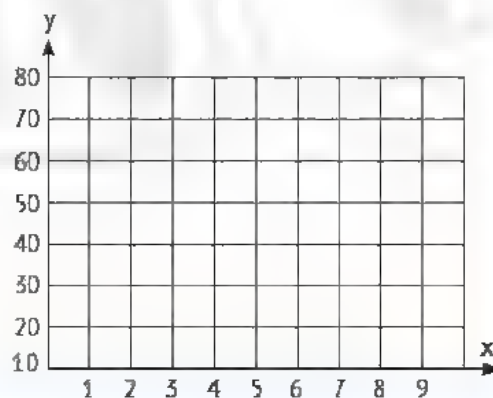
Assessment on Unit 6

ⓐ Statistical question .

(it results in a lot of different answers **or** has one answer

or its answer is yes or no **or** its answer is one number)

ⓑ From the categorical data .

(birthdates **or** ages **or** weights **or** favorite colors)

ⓒ From numerical data

(preferred colors **or** blood types **or** places of birth **or** ages)

ⓓ All of the following data are categorical, except for .

(favorite foods **or** jobs **or** weight **or** eye colors)

ⓔ All of the following data are numerical, except .

(temperatures **or** lengths **or** names **or** weights)

ⓕ The horizontal axis includes numerical periods in a .

(dot plot **or** bar graph **or** double bar graph **or** histogram)

ⓖ A .... does not have a vertical axis.

(dot plot **or** bar graph **or** double bar graph **or** histogram)

ⓗ In a there is a graduated scale for the vertical axis.

(dot plot only **or** bar graph only

or both bar graph and histogram **or** histogram only)

ⓘ The maximum value of the values 8, 6, 8, 7, 2, 6, 3 is .

(2 **or** 7 **or** 8 **or** 6)

ⓙ The upper quartile of the values 9, 3, 0, 4, 8, 1, 7 is .

(9 **or** 4 **or** 1 **or** 8)

Second: Complete the following:

a Types of questions are _____ questions and _____ questions.

b Types of statistical data are _____ data and _____ data.

c The monthly income of an institution's employees 's from the _____ data.

d The number of letters of the first name of each student in the class, is from the _____ data

e The best graph to represent the number of pupils between the ages of 12 – 15 years is _____ .

f The best graph to represent the number of studying hours for a student on Saturday is _____ .

g The median of the values "9, 2, 8, 6" is _____ .

h The minimum value of the values 2 , 9 , 1 , 1 , 8 , 5 is _____ .

i The most appropriate graph to represent individual data and the number of data values present is _____ .

j The most appropriate graph to represent peaks and gaps and aggregate data is _____ .

Third: Answer the following:

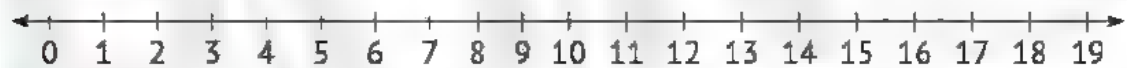1 Draw the histogram of the following data , which represent the scores of 50 students.

| Interval Grades	Frequency Number of Students
10 – 19	4
20 – 29	12
30 – 39	18
40 – 49	9
50 – 59	8
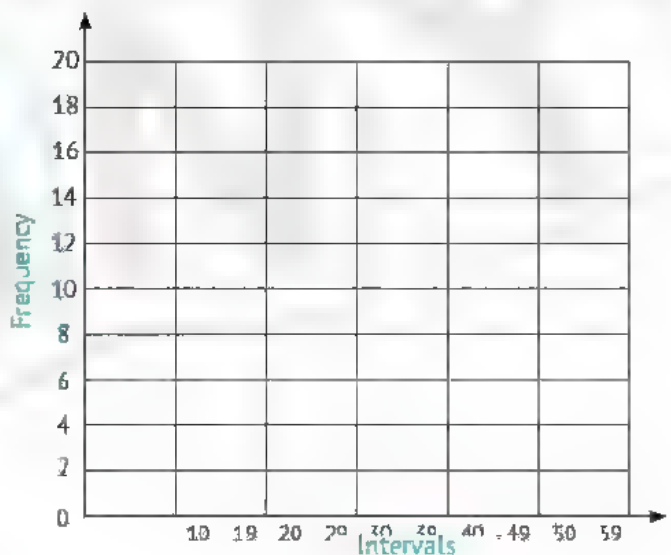
2 Draw the box plot for each of the following groups of values

(3 , 8 , 7 , 2 , 10 , 12 , 9 , 2 , 10 , 9).

The order:

Minimum Value: Maximum Value: Median:

Upper Quartile: ....   Lower Quartile:

3 The dots plot and the box plot below show the weights of a number of pupils in your class?

Weights of pupils in your class   Weights of pupils in your class
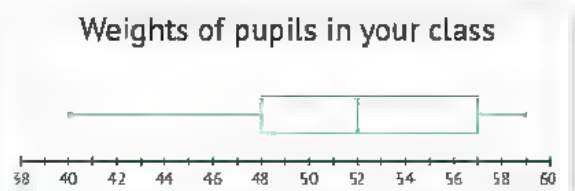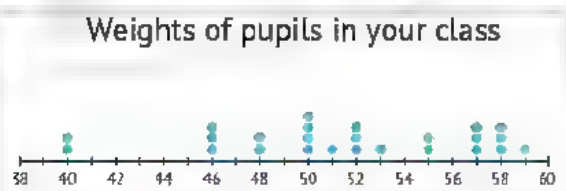
a Answer the following, explaining the best graph(s) that helps you in the answer.

Question	Answer	Graph	
		Dot Plot	Box Plot
① How many students weigh 57 kg?			
② What is the median value?			
③ What is the height of the lightest pupil zone?			
④ What is the height of the heaviet students?			
⑤ How many students weigh more than 54 cm?			

b Write two questions that can be answered using:

Dot plot

① ....   ②

Box plot

① ....   ②

Assessment 1

First: **Choose the correct answer:**

ⓐ The GCF of relatively prime numbers is _____ .

(0 **or** 1 **or** their sum **or** their product)

ⓑ _____ is neither a positive nor a negative number. (0 **or** 1 **or** $^-$1 **or** 10)

ⓒ All integers are _____ numbers.

(counting **or** natural **or** even **or** rational)

ⓓ The number of terms that make up the algebraic expression "$5x + 3y + 2$" is _____ .   (2 **or** 3 **or** 5 **or** 6)

ⓔ The inequality that represents all values less than or equal to -7 is _____ .

($x > -7$ **or** $x < -7$ **or** $x \leqslant -7$ **or** $x \geqslant -7$)

Second: **Complete the following:**

ⓐ _____ to the power _____ $= 6^4$

ⓑ If a meal costs 65 pounds, what is the price of "b" meals of the same type

= _____ .

ⓒ If $8m = 16$, then $2m + 3 =$ _____ .

ⓓ The inequality that represents positive integers is _____ .

ⓔ The inequality represented on opposite number line is _____ .
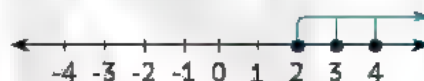
Third: **Answer the following:**

① Use the opposite box plot to find:

ⓐ Minimum Value:

ⓑ Maximum Value: _____   **ⓒ** Median:

ⓓ Upper Quartile: **ⓔ** Lower Quartile:
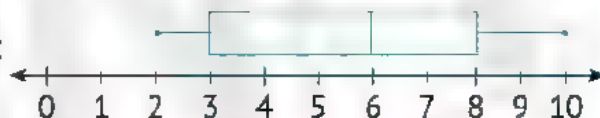
② Find the value of each of the following:

ⓐ $d^3 + 7$ If [$d = 3$]   **ⓑ** $37 - 4e$ If [$e = 2$]

= _____   = _____

Assessment 2

First: **Choose the correct answer:**

(a) .... is a prime number. (55 **or** 11 **or** 22 **or** 33)

(b) $-\dfrac{7}{4} >$ .... ($\dfrac{7}{4}$ **or** $-1\dfrac{3}{4}$ **or** $\dfrac{8}{4}$ **or** $-\dfrac{8}{4}$)

(c) The number of terms of algebraic expression "8 + 3 x y" is ....

(2 **or** 3 **or** 4 **or** 5)

(d) The expression representing:

"half the difference between the number a and 7" is ....

($\dfrac{1}{2}a-7$ **or** $\dfrac{1}{2}a+7$ **or** $\dfrac{1}{2}(a-7)$ **or** $\dfrac{1}{2}(a+7)$)

(e) 5^0 .... 0^5 (< **or** = **or** > **or** ≥)

Second: **Complete the following:**

(a) Do you like the red color? is a .... question.

(b) The median of the values: 5, 7, 8, 3, 6 is ....

(c) .... is the only prime even number.

(d) The next number to 0 is ....

(e) Like terms in the algebraic expression "3 b + 5 a + 2 b + 5" are ....

Third: **Answer the following:**

(a) A travel agency wants to divide 3,556 passengers using microbuses, each one has 14 seats. How many microbuses can the travel agency use?

(b) Draw the box plot for the following groups of values:

(5 , 8 , 3 , 2 , 8 , 6 , 4).

```
←——|——|——|——|——|——|——|——|——|——|——→
   0  1  2  3  4  5  6  7  8  9  10
```

Assessment on Unit 7
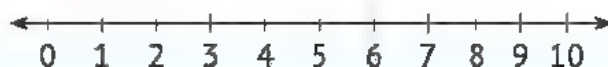
First: **Choose the correct answer:**

ⓐ If the mean of a set of values is 7 and the number of these values is 9, then the sum of the values is _____ . (16 or 63 or 2 or 9)

ⓑ If the mean of a set of values is 8 and the sum of these values is 48, then the number of these values is equal to _____ .(6 or 40 or 56 or 8)

ⓒ _____ is not affected by outliers in the data set.

(The mean or The mode or The median or all of them)

ⓓ The range cannot be found using _____ .

(dot plot or histogram or box chart or all of them)

ⓔ _____ is one of the measures of variability (spread).

(The mean or The median or The mode or The range)

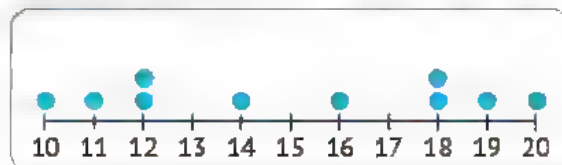**ⓕ** The correct description that applies to the opposite graph is the mean
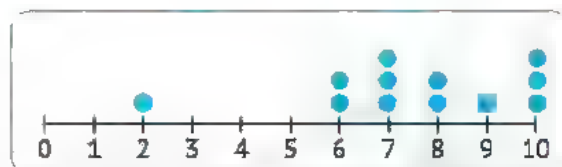
(increases or decreases or remains the same or The range)

ⓖ The beast choice as a measure of central tendency for the values represented In the opposite graph is
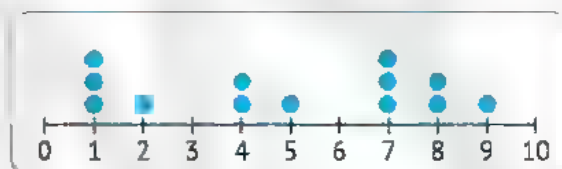
(the mean or the median or the mode or both the mean and the median)

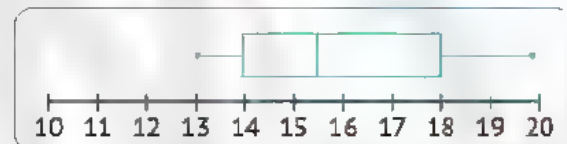**ⓗ** The mean of the values represented by opposite dot plot graph is

(15 or 20 or 14 or 16)

i The median of the values represented by opposite box plot graph is _____

(2 **or** 3 **or** 6 **or** 8)

j The range of values represented on the opposite box plot is _____

(4 **or** 18 **or** 5 **or** 7)

Second: Answer the following:

a The mean of the values: 9, 7, 3, 1, 8, 2 is _____ .

b The mode of the values 5, 3, 8, 7, 3, 5 is _____ .

c The range for the values: 15, 5, 17, 3, 12 is _____ .

d The outliers in the set of values: 5, 18, 3, 4, 7, 6 are _____ .

e _____ and _____ are affected by the presence of outliers.

Third: Answer the following:

1 Using the corresponding graph (answer).

a The Mean: _____

b The Median: _____

c The Mode: _____
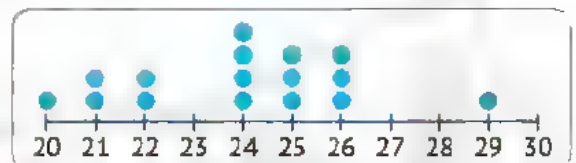
d The Range: _____   **e** Outliers: _____

2 The following table represents the temperatures recorded in a city in a week:

Day	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Temperature	26°	25°	30°	25°	23°	24°	22°

Using the values shown table, find:

a The Mean: _____   **b** The Median: _____

c The Mode: _____   **d** The Range: _____

e Outliers: _____

Assessment 1

First: **Choose the correct answer:**

a The GCF of 9 and 8 is _____ . (9 **or** 8 **or** 1 **or** 72)

b $1\dfrac{3}{4} + 2\dfrac{1}{2} =$ _____ ($4\dfrac{1}{4}$ **or** $3\dfrac{1}{4}$ **or** $3\dfrac{4}{6}$ **or** 4)

c The rational number $2\dfrac{3}{4}$ is between the two whole numbers _____ .
($-1, -2$ **or** $-2, -3$ **or** $1, 2$ **or** $2, 3$)

d Twice the sum of 7 and x is _____ .
($2x + 7$ **or** $2(x + 7)$ **or** $27 + x$ **or** $2(2x + 7)$)

e _____ may uses separate columns to represent the data.
(Dot plots **or** Bar graph **or** Double bar graph **or** Histogram)

Second: **Complete the following:**

a The smallest two-digit prime number is _____ .

b The additive inverse of 5.9 is _____ .

c The algebraic factor in the term "2.5 x" is _____ .

d The inequality that represents all values "greater than -1" _____ .

e $z + 5 = m$: independent variable is _____ , dependent variable is _____ .

Third: **Answer the following:**

1 Use the following Box Plot to Complete:

a Maximum Value: _____

b Minimum Value: _____

c Median: _____   **d** Range: _____

8 9 10 11 12 13 14 15 16 17 18 19 21 22

2 Use the following Dot Plot to Complete:

a Maximum Value: _____

b Minimum Value: _____

c Median: _____

d Mean: _____   **e** Range: _____

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
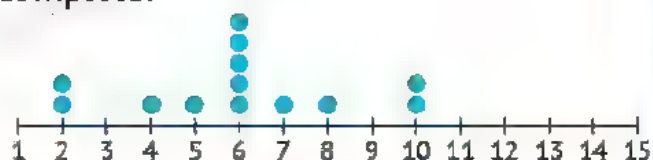
Assessment 2

First: **Choose the correct answer:**

a $(2 \times 8) + (2 \times 3) =$

$(2 \times 8 \times 3$ or $2 + (8 \times 3)$ or $2 \times (8 + 3)$ or $2 \times 8 \times 2 \times 3)$

b 5 is not a/an .

(counting number or natural number or integer, or even number)

c $5 \times 3 + 2^2 =$ _____ (35 or 19 or 51 or 17)

d Which of the following values is a solution to the inequality

"$x \geqslant 5$" ? .... (−5 or 4.59 or −25 or 6)

e .... are categorical data.

(Heights or Ages or Weights or Favourite colors)

Second: **Complete the following:**

a The prime number has only _____ factor(s).

b The integer that expresses:

"the temperature is 15 below zero" is _____

c If 5 = l m l, then m = _____ or _____

d The number of terms in the algebraic expression:

"$3x + 7y - 25$" is _____

e Categorical statistical data, written in the form of _____ .

Third: **Answer the following:**

① Complete the following table using the opposite histogram:

Intervals	Frequency
0 – 9	
10 – 19	
20 – 29	
30 – 39	
40 – 49	
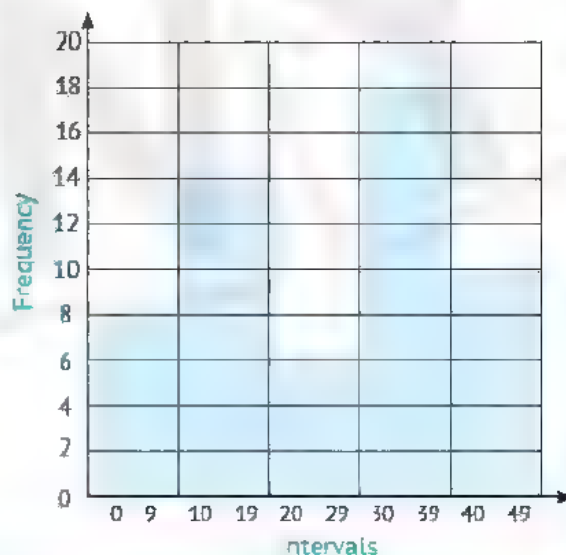
2 Final Revision

First: **Choose the correct answer:**

1 If $15 \times 27 = 405$, then $405 \div 15 = $ _____ . (27 or 15 or 405 or 175)

2 If $2,054 = 26 \times 79$, then $2,060 \div 79 = 26$, and the remainder is _____ .

(14 or 41 or 6 or 16)

3 .... $\div 11 = 14$ R3   (158 or 157 or 156 or 154)

4 _____ is a factor of all numbers.   (0 or 1 or 2 or 3)

5 The prime number _____ .   (has no factors or has only one factor

or has two factors or has three factors)

6 The prime factors of 12 are _____ .

(3×4 or $2 \times 2 \times 3$ or 2×6 or 1×12)

7 If the prime factors of a number are $2 \times 2 \times 2$, then the number is _____ .

(8 or 4 or 6 or 222)

8 The LCM of any two prime numbers is _____ .

(the smallest number or 1 or their sum or their product)

9 The LCM of of a relatively prime number is _____ .

(the smallest number or 1 or their sum or their product)

10 The GCF of 4 and 15 is _____ .   (0 or 1 or 4 or 5)

11 6 and .... are relatively prime numbers.

(4 or 15 or 35 or 20)

12 _____ is a multiple of all numbers.   (0 or 1 or 2 or 3)

13 _____ is a prime number.   (55 or 11 or 22 or 33)

14 0, 6, 8, 2 are .... numbers.

(even or odd or prime or counting)

15 The prime factors of 20 are _____ .

(2×10 or 5×4 or $2 \times 2 \times 5$ or 1×20)

16 If the prime factors of a number are $2 \times 3 \times 3$, then the number is ____ .

(18 or 9 or 11 or 233)

17 The greatest common factor of any two prime numbers is ____ .

(0 or 1 or their sum or their product)

18 The least common multiple of two prime numbers is ____ .

(smallest number or 1 or their sum or their product)

19 The least common multiple of a relatively prime number is ____ .

(greatest number or 1 or their sum or their product)

20 The least common multiple of 8 and 5 is ____ .

(8 or 5 or 13 or 40)

21 The greatest common factor of 6 and 25 is ____ .

(1 or 2 or 4 or 5)

22 8 and .... are relatively prime numbers.

(4 or 24 or 35 or 20)

23 12 and .... are relatively prime numbers.

(8 or 25 or 36 or 18)

24 The greatest common factor of a number whose prime factors are 2 and 5, and a number whose factors are 3 and 7 is ____ .

(0 or 10 or 1 or 210)

25 ____ is a factor of all numbers.   (0 or 1 or 2 or 3)

26 $6 \times (7 + 5) = $ ____

($(6 \times 7) + (6 \times 5)$ or $6 \times 7 + 5$ or $6 \times 7 \times 5$ or $(6 + 7) \times (6 + 5)$)

27 $(4 \times 9) + (4 \times 3) = $ ____

($4 \times 9 \times 3$ or $(4 \times 9) + 3$ or $4 + (9 \times 3)$ or $4 \times (9 + 3)$)

28 $1 \dfrac{3}{4} + 2 \dfrac{1}{4} = $ ____

($4\dfrac{1}{4}$ or $3\dfrac{1}{4}$ or $3\dfrac{4}{6}$ or 4)

29 -3 is located to the right of ____ on the number line.

(−4 or 4 or −2 or 2)

30 The number that comes just before ____ is -1. (−2 or 2 or 0 or 1)

31 −9 > _____   (−15 **or** 8 **or** −8 **or** 10)

32 The opposite of -12 is   .. . .   (−12 **or** 12 **or** 1 **or** 2)

33 _____ is neither a positive nor a negative number. (0 **or** 1 **or** −1 **or** 10)

34 The opposite of 5 >   (−4 **or** 4 **or** −6 **or** 6)

35 The largest negative integer is   .   (1 **or** 1 **or** 100 **or** 0)

36 The largest non-positive integer is   .   (−1 **or** 1 **or** −100 **or** 0)

37 All negative numbers   zero.   (< **or** = **or** > **or** ≤)

38 All positive numbers   zero.   (< **or** = **or** > **or** ≤)

39 The integer that expresses (the depth of a well of 5 meters) is   .

(−5 **or** 5 **or** 10 **or** 10)

40 An integer between 2 and −2 is   .   (−1 **or** −3 **or** 3 **or** −4)

41 The number just after −9 is   .   (−10 **or** −8 **or** 10 **or** 8)

42 −25   −12   (< **or** = **or** > **or** ≤)

43 6 < ....   (−8 **or** 8 **or** −9 **or** −7)

44 −2.5 is a/an

(counting number **or** natural number **or** integer **or** rational number)

45 5 is not a/an   .

(counting number **or** natural number **or** integer **or** even number)

46 0 is a/an .... number.

(counting **or** natural **or** negative integer **or** odd)

47 The opposite of $-\dfrac{3}{4}$ is   .   ($\dfrac{3}{4}$ **or** $-\dfrac{4}{3}$ **or** $\dfrac{4}{3}$ **or** $1\dfrac{1}{3}$)

48 −6 in the form $\dfrac{a}{b}$ is   .   ($-\dfrac{1}{6}$ **or** $-\dfrac{6}{1}$ **or** $\dfrac{1}{6}$ **or** $-\dfrac{6}{1}$)

49 Additive inverse of a number $\dfrac{3}{5}$ $-\dfrac{5}{3}$ (< **or** = **or** > **or** ≤)

50 $-\dfrac{1}{4}$ > ....   ($\dfrac{1}{4}$ **or** $-1\dfrac{3}{4}$ **or** $\dfrac{8}{4}$ **or** $-\dfrac{8}{4}$)

51 − 2 is a/an   .

(counting number **or** natural number **or** negative integer **or** odd number)

52 All integers are .... numbers.

(counting or natural or even or rational)

53 The additive inverse of −5 is   .   ($\frac{1}{5}$ or − $\frac{1}{5}$ or − 5 or 5)

54 Rational number − 2 $\frac{3}{5}$ is between   .

(− 1 , − 2 or − 2 , − 3 or 1 , 2 or 2 , 3)

55 −7 is to the right of .... on the number line.

(−8 or 8 or −6 or 6)

56 $|-3.7|$ = ...   (3.7 or − 3.7 or 37 or − 37)

57 The absolute value of "zero" is   .   (10 or 0 or −1 or 1)

58 The absolute value of 2.7 is   .   (−2.7 or 2.7 or 27 or −27)

59 The larger the absolute value, the   number zero.

(closer to or farther from or equal to)

60 The algebraic term " $\frac{1}{5}$ x " has   factors.   (1 or 2 or 3 or 4)

61 In the algebraic term "− 3 x y" the coefficient is   .

(y or x or 3 or −3)

62 The algebraic factor in the algebraic term " $\frac{3}{8}$ x " is   .

(x or 8 or 3 or $\frac{3}{8}$)

63 The number of terms of "7 a − 2 b" is   .   (2 or 3 or 5 or 6)

64 Like terms for the algebraic expression "5 + 5 y + 2 y" are   .

(5 , 5 y or 5 y , 2 y or 5 , 2 y or 5 , 5y , 2y)

65 Like terms for the algebraic expression "2 + 3 b + 2 a" are   .

(2 , 3 b or 2 , 2 a or 3 b + 2 a or none)

66 In the algebraic expression "3 y + 9" the absolute term is   .

(9 or 3 or y or 3y)

67 If the height of the school building is "m" meters and the height of the tree adjacent to this building is 10 meters less than its height, then height of the tree is   meters. (m + 10 or m − 10 or 10 m or $\frac{m}{10}$)

68 Ahmed and Tamer have 60 pounds, if what Ahmed has is "١" pounds, then what Tamer has is .... pounds

$$(60 + x \text{ or } 60 - x \text{ or } 60x \text{ or } 60 \div x)$$

69 If we subtract 5 from the number "١", the result is _____ .

$$(x + 5 \text{ or } x - 5 \text{ or } 5 - x \text{ or } 5x)$$

70 The algebraic term is "5 ab" formed from _____ factors.

$$(1 \text{ or } 2 \text{ or } 3 \text{ or } 4)$$

71 Ziyad saved up "١" pounds and his father gave him 10 pounds so that he would be with him _____ . $(x - 10 \text{ or } x + 10 \text{ or } 10x \text{ or } 10 - x)$

72 The algebraic expression representing (subtracting 3 from twice the number "١")is _____ . $(x - 3 \text{ or } 2x - 3 \text{ or } 3x + 2 \text{ or } 5x)$

73 The algebraic expression representing (half the difference between the number "a" and 7) is _____ .

$$(\frac{1}{2}a - 7 \text{ or } \frac{1}{2}a + 7 \text{ or } \frac{1}{2}(a - 7) \text{ or } \frac{1}{2}(a + 7))$$

74 If Basim is "n" years old now, how old will he be after 7 years? _____ .

$$(n - 7 \text{ or } n + 7 \text{ or } 7 \div n \text{ or } 7n)$$

75 Which of the following operations expresses the mathematical expression "double the number plus 4"? $(+, - \text{ or } x, - \text{ or } x, + \text{ or } x, \div)$

76 A square of side length "s" cm has a perimeter of _____ cm.

$$(s + 4 \text{ or } s \div 4 \text{ or } s - 4 \text{ or } 4s)$$

77 If the price of one book is 15 pounds, how much is the price of "b" number of books? $(15b \text{ or } 15 - b \text{ or } b - 15 \text{ or } b + 15)$

78 $4^2 =$ _____ $(4 \times 2 \text{ or } 4 \times 4 \text{ or } 4 + 2 \text{ or } 4 + 4)$

79 $3^0 =$ _____ $(3 \text{ or } 0 \text{ or } 1 \text{ or } 3 \times 0)$

80 $1^5 =$ _____ $(1 \times 5 \text{ or } 1 + 5 \text{ or } 1 \text{ or } 0)$

81 $2 \times 2 \times 2 \times 2 \times 2 =$ $(2^5 \text{ or } 5^2 \text{ or } 2 \times 5 \text{ or } 2 + 5)$

82 $4^{\square} = 1$ (0 or 1 or 2 or 5)

83 $2^4 \underline{\quad} 4^2$ (< or = or > or ⩽)

84 $7^0 \underline{\quad} 0^7$ (< or = or > or ⩽)

85 $5 \times 3 + 2^2 = $ ....   (35 or 19 or 51 or 17)

86 $3^2 + 3^2 + 3^2 = $ ....   (3^6 or 9^2 or 3^3 or 9^6)

87 If the price of one shirt is 120 Egyptian pounds, then the price of "m" number of shirts is .(120 m or 120 ÷ m or 120 + m or 120 − m)

88 If Hanan saves "d" pound daily for 5 days, then her father gives her 20 pounds, so the amount that Hanan has now is   .

(5 + 20d or 20 − 5d or 5d + 20 or 5 × (d + 20))

89 The value of the expression $a^2 + 2 \times 3$, If $a = 3$ is   .

(15 or 33 or 12 or 24)

90 If $a + 8 = 15$, then $a = $.   (7 or 15 or 8 or 23)

91 If $b = 6$, then $b - $ .... $= 4$ (10 or 4 or 2 or 6)

92 If $5 \iota = 40$, then $\iota = $.   (35 or 45 or 8 or 200)

93 If $y = 16$, then $\dfrac{y}{\quad} = 2$.   (3 or 8 or 12 or 4)

94 The inequality that represents all values "greater than −1" is   .

($x > -1$ or $x < -1$ or $x \leqslant -1$ or $x \geqslant -1$)

95 The inequality that represents all values to the left of 5 on the number line is ....   ($x > 5$ or $x < 5$ or $x \leqslant 5$ or $x \geqslant 5$)

96 The inequality that represents all values "less than or equal to −7" is

($x > -7$ or $x < -7$ or $x \leqslant -7$ or $x \geqslant -7$)

97 The graph of the inequalities "$\iota > 3$" and "$\iota < 3$" on the number line are similar in that   .   (3 doesn't belong to any of them

or both include all values to the left of the number 3

or there is a common point between them

or each of them includes all the values to the right of the number 3)

98 The graph of the inequalities "$x < 4$" and "$x \leqslant 4$" on the number line are similar in that _____ .

(4 doesn't belong to any of them **or** they include all values to the left of 4

or there is "a" common point between them

or each of them includes all the values to the right of the number 4)

99 Which of the following values is a solution to the inequality "$x < 9$"?

(10 **or** 9.1 **or** -9.5 **or** 9)

100 Which of the following values is a solution to the inequality "$x \geqslant 5$"?

(-5 **or** 4.59 **or** -25 **or** 6)

101 The inequality for which all negative numbers are _____ .

($x > 0$ **or** $x < 0$ **or** $x \leqslant 0$ **or** $x \geqslant 0$)

102 In "$u = 3 \div w$" the independent variable is _____ . (w **or** u **or** 3 **or** $\dfrac{w}{3}$)

103 In "$a = 5\ d$", the dependent variable is _____ . (5 **or** a **or** d **or** 5d)

104 If the amount of fuel consumed by the car depends on the distance traveled, then the independent variable is the _____ .

(fuel amount **or** distance traveled **or** traveled time **or** temperature)

105 If the dependent variable is the student's score in the exam, then the independent variable is _____ .

(the type of pen used in the solution **or** the age of the student

or the number of correct answers **or** the number of questions in the exam)

106 The equation that expresses "subtract from 9" is _____ .

($y = x - 9$ **or** $y = 9 - x$ **or** $y - x = 9$ **or** $y = 9x$)

107 The equation that expresses "multiply by 2 and then add 5" is _____ .

($y = 5x + 2$ **or** $y = 2(x + 5)$ **or** $y = 5(x + 2)$ **or** $y = 2x + 5$)

108 The relation that represents the equation "$y = \dfrac{1}{3}\ x$" is _____

(divide by 3 **or** multiply by 3 **or** divide by $\dfrac{1}{3}$ **or** subtract $\dfrac{1}{3}$)

109 The relation that represents the equation "$y = (x - 3) \div 2$" is _____ .

(divide by 2, then subtract 3 **or** subtract 3, then divide by 2

or divide by 3, then subtract 2 **or** subtract 2, then divide by 3)

110 $y = 6 x + 4$, If $x = 3$ then $y =$ ____ . (10 **or** 22 **or** 18 **or** 67)

111 $y = \dfrac{1}{4} x - 2$, If $x = 8$ then $y =$ ____ . (0 **or** 2 **or** 6 **or** 30)

112 Statistical question ____ .

(results in a lot of different answers **or** its answer is yes or no

or has one answer **or** its answer is one number)

113 _____ are categorical data.

(Dates of birth **or** Ages **or** Weights **or** Favorite colors)

114 _____ are categorical data.

(Numbers of students in each class **or** Test scores

or Numbers of family members **or** Favourite TV shows)

115 The horizontal axis includes numerical periods in

(dot plot **or** bar graph **or** double bar graph **or** histogram)

116 _____ does not have a vertical axis.

(Dot plot **or** Bar graph **or** Double bar graph **or** Histogram)

117 _____ uses separate columns to represent the data.

(Dot plot **or** Bar graph **or** Double bar graph **or** Histogram)

118 _____ has horizontal axis.

(Bar graph **or** Double bar graph **or** Histogram **or** All of the previous)

119 In the dot plot, ____ . (columns are used to represent data

or there is no need for a horizontal axis

or each value is represented by a point

or data is displayed grouped in intervals)

120 In the bar graph ____ .

(each bar represents a number or one categorical data

or it does not need a vertical axis **or** the bars must touched 0
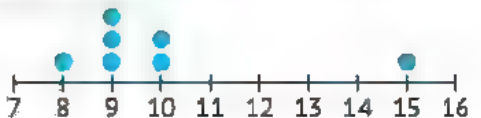
or each piece of information is represented by a dot)

121 In the histogram   .

(it does not need a vertical axis **or** the bars must touch

or data is shown above the number line **or** all bars are evenly spaced)

122 In each of the bar graphs and histograms   .

(bars are used to represent data **or** each bar represents an interval

or each bar represents one number **or** The data is shown above the number line)

123 In the   there is a graduated scale for the vertical axis.

(dot plots only **or** bar graph only

or histogram only **or** both of bar graph and histogram)

124 A   may be used to display numerical data.

(dot plot **or** bar graph **or** histogram **or** all of the previous)

125 The best graph to represent the number of pupils whose height

ranges from 150 – 160 cm is the   .

(dot plots **or** bar graph **or** histogram **or** all of the previous)

126 The best graph to represent the number of students absent on a

Sunday is   .

(dot plots **or** bar graph **or** histogram **or** all of the previous)

127 A .... has two axes, horizontal and vertical.

(bar graph **or** double bar graph **or** histogram **or** all of the previous)

128 The bar graph   (can display numerical and categorical data

or can display only numerical data

or can display only categorical data)

129 The mean of the values 45, 15, 40 , 70, 80 is   .

(40 **or** 45 **or** 50 **or** 60)

130 If the mean of the values 12 , 15 , ، , 8 is 10 then the value of " ، " is

(40 **or** 5 **or** 20 **or** 10)

131 If the sum of 8 values equals 48, then the mean of these values is

(40 **or** 56 **or** 24 **or** 6)

132 If the sum of a set of values is 36, and the mean of these values is 6, then the number of these values is (6 or 42 or 30 or 216)

133 The median of the values: 4, 9, 7, 1, 1, 2 is (4 or 2 or 3 or 24)

134 If the mean of Manal and Siham's ages is 7 years, and Manal's age is 8 years, then Siham's age is _____ years. (6 or 7 or 8 or 15)

135 Values "5, 3, 2, 5, 2, 7" has

(no mode or one mode or two modes or three modes)

136 The correct description that applies to opposite graph is the mean ... .

(increases or decreases or remains the same)

137 .... will be the best choice as a measure of the centeral tendency in the opposite graph.

(The mean or The median or The mode or Both mean and median)

138 If the range of a set of values is 11 and the smallest value is 7, then the largest value is _____ . (4 or 18 or 77 or 70)

139 All of the following are measures of the center, except _____ .

(mean or median or mode or range)

140 The range cannot be found using _____ .

(dot plot or box plot or histogram or bar chart)

141 The rational number represented on the opposite number line is _____ .

($4\frac{2}{3}$ or $5\frac{2}{3}$ or $-4\frac{2}{3}$ or $-5\frac{2}{3}$)

142 The rational number represented on the opposite number line is _____ .

(0.5 or -0.5 or 1.5 or -1.5)

143 The graph representing the equation "$x < 0$" is _____ .

(**or**

or **or**)
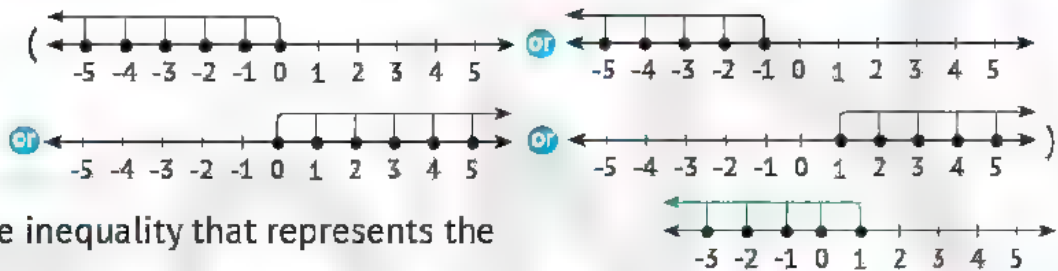
144 The inequality that represents the

opposite model is _____ .

($x > 2$ **or** $x < 2$ **or** $x \geqslant 2$ **or** $x \leqslant 2$)

145 The equation that represents the

opposite model is

($x + 2 = 9$ **or** $2x = 9$ **or** $x - 2 = 9$ **or** $x \div 2 = 9$)

146 The mean of the values represented

on the opposite dot plot is ......

(14 **or** 6 **or** 7 **or** 6.5)

147 The median of the values represented

on the opposite dot plot is

(15 **or** 8 **or** 9 **or** 10)

148 The mode of the values represented

on the opposite dot plot is ....

(3 **or** 5 **or** 8 **or** 7)

149 The range of the values represented

on the opposite dot plot is ....

(8 **or** 7 **or** 10 **or** 5)
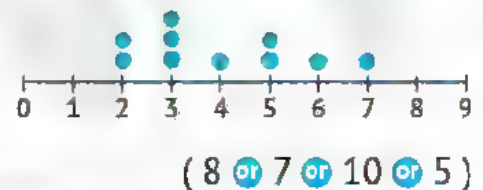
150 The mode of the values represented

on the opposite dot plot is ....

(5 **or** 6 **or** 5.5 **or** 8)
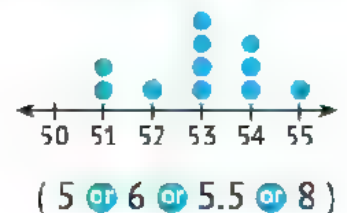
151 The outliers of the values represented on the opposite dot plot is ....

(2 **or** 7 **or** 3 **or** none)

152 .... will be the best choice as a measure of the central tendency in the opposite graph.

(Mean **or** Mode **or** Median **or** Range)

153 The correct description that applies on the opposite graph is the mean ....
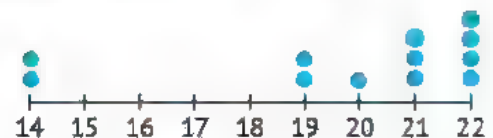
(increases **or** decreases **or** remains the same)

154 The range of the values represented on the opposite box plot is ....
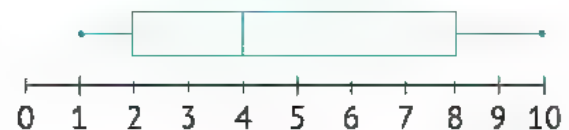
(10 **or** 2 **or** 9 **or** 8)

155 The median of the values represented on the opposite box plot is ....
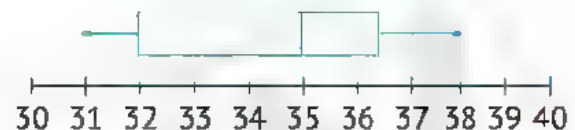
(31 **or** 32 **or** 34 **or** 38)

156 The lower quartile of the values represented on the opposite box plot is
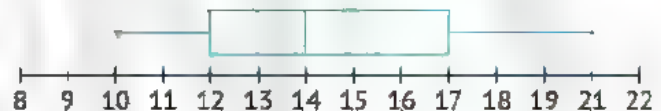
(10 **or** 12 **or** 14 **or** 17)

Second: Complete the following:

1   If 13 × 48 = 624, then 624 ÷ 13 = _____ .

2   If 976 = 61 × 16, then 985 ÷ 61 = 16 , and the remainder _____ .

3   If 2,000 ÷ 51 = 39 and the remainder is 11, then 51 × 39 = _____ .

4   The number that, if divided by 35, the quotient will be 139, and the remainder is 21, is _____ .

5   The prime number has .... only factors.

6   All prime numbers are odd numbers, except _____ is an even.

7   _____ is the smallest prime number.

8   _____ is the smallest odd prime number.

9   The smallest two-digit prime number is _____ .

10   Prime numbers less than 10 are _____ .

11   _____ is a number whose prime factors are 2, 5, 7

12   The GCF of the two relatively prime number is _____ .

13   The LCM of the two relatively prime number is _____ .

14   The .... number has only 2 factors.

15   All prime numbers are odd numbers, except _____ is an even number.

16   _____ is the only prime even number.

17   _____ is a number greater than one, and it has only two factors.

18   The prime factors of 28 are _____

19   Two numbers are relatively prime if their greatest common factor is _____

20   The least common multiple of two prime numbers is _____ .

21   5 × (3 + 6) = (........ × ....) + (..... × ....)

22   _____ × (........ + ...) = (7 × 2) + (7 × 4)

23   8 × (........ + ...) = (........ × 9) + (........ × 2)

24   _____ × (4 + 6) − (9 × ....) + (9 × ....)

25   The number and its opposite are on _____ from zero, but on two sides on the number line.

26 The opposite of "10" is the number   .

27 The additive inverse of 8 is   .

28 The additive inverse of .... is itself.

29 The smallest number in counting numbers is   .

30 The smallest counting number is   .

31 The smallest natural number is   .

32 The smallest positive integer is   .

33 The greatest non-positive integer is   .

34 The greatest negative integer is   .

35 The smallest non-negative integer is   .

36 Integers between -3 and 2 are   .

37 $5, 4, 3, 2, 1, 0,$.

38 $-5, -4, -3, -2,$ ...., ..., ...,

39 Rational number $-\dfrac{3}{2}$ in the decimal form =   .

40 All counting numbers are also   numbers, and   numbers.

41 The next number to -8 is   .

42 The rational number "-7.2" lies between   and   .

43 The rational number "-5.6" lies between   and   on the number line.

44 All natural numbers are   numbers and   numbers.

45 All integers are .... numbers.

46 -2.5 in the form $\dfrac{a}{b}$ is   (in its simplest form).

47 The rational number $-\dfrac{7}{4}$ in the decimal form is   .

48 $|-5| =$

49 $\left|\dfrac{7}{9}\right| =$

50 $\left|-\dfrac{3}{4}\right| =$

51 | 0.03 | –

52 | -0.7 | =

53 If 5 = | a |, then a =   or

54 If b = | -7 |, then b =

55 If n = | 9 |, then n =

56 – | -4 | –

57 | 9 | + | -9 | =

58 Opposite numbers on the number line have   absolute values (equal - different).

59 The algebraic factor in "2.5 x" is   .

60 The coefficient in the algebraic term "3 ι y" is   .

61 The number of terms in the algebraic expression 3 ι y – 25 is   .

62 Like terms in the algebraic expression 6 ι + 6 y + 2 ι + 6 are   .

63 The absolute term in the algebraic expression 5 b + 3.2 is   .

64 The algebraic expression that expresses "three times b" is   .

65 The algebraic expression that expresses adding "z" to 36 is   .

66 The algebraic expression that expresses 5 less than "ι" is   .

67 Baher has "m" stickers in the sticker book and then puts up 12 more stickers. So he has now   .

68 Two numbers their sum is 12, one of which is d, so the other number is (   )

69 Salah saves "z" pounds per day. So he saves   pounds in a week.

70 The verbal form for the algebraic expression 5 a + 7 is   .

71 If the side length of "a" square is "s" cm, then the perimeter of the square =   .

72 The value of the expression 9 x if (x = 5) is   .

73 The value of the expression r^2 if (r = 9) is   .

74 The algebraic expressions "2 ι + 3" and "2 (ι + 1) are   expressions. (Equal, Not equal)

75 The value of the expression "$3 (y^2 + 2)$ (if $y = 3$)" is _____ .

76 Two integers their sum is s, one of which is 10, then the other number is _____

77 In the algebraic term $7 \times y$, the coefficient is _____ .

78 Like terms for the algebraic expression $3n + 3 + 2 n$ are _____ .

79 The algebraic expression that represents "twice of subtracting 5 from the number "w" is _____ .

80 The value of the algebraic expression $4 \times (y^3 - 7)$, If $y = 3$ is _____ .

81 In $5^7 : 5$ is called _____ and 7 is called _____ .

82 In _____ 4 is called the base and 2 is called the exponent.

83 Six cubed = _____

84 Seven squared – _____

85 Four to the power 5 _____

86 _____ to the power _____ $= 6^4$

87 If $3^x = 81$, then the value of x is _____ .

88 If $y^3 = 64$, then the value of y is _____ .

89 $3 \times 3 \times 3 \times 3 \times 3 \times 3 =$ _____

90 5 _____ $= 1$

91 4 _____ $= 4$

92 $8 \times 8 \times 8 =$ _____ ^{3}

93 $7^2 =$ _____ $\times$ _____

94 $6^2 \div 3^2 \times 2 =$ _____

95 Using the opposite model:

The equation is _____

$x =$ _____

96 If $x + 3 = 8$, then $x =$ _____ .

97 If $y - 2 = 9$, then $y =$ _____ .

98 If $8\,m = 16$, then m =

99 If $\dfrac{1}{3}\,n = 3$, then n =

100 If $a = 3$, then a + ____ = 7

101 If $b = 5$, then b ____ = 2

102 If $d = 4$, then ____ × d = 20

103 If $k = 12$, then K ÷ ____ = 4

104 The inequality that represents all values less than -6 is

105 The similarities between the graphs of the two algebraic expressions $x = 6$ and $x \geqslant 6$ are

106 The inequality that represents all values greater than -1:

107 The inequality that represents all values less than 2:

108 The inequality that represents all values to the right of -9 on the number line are:

109 $e = (8 - r)$ independent variable is ____ , dependent variable is

110 In the equation $(m - 8) = a$, the dependent variable is

111 If the price of books depends on the number of books purchased, then

The independent variable is ____ .

The dependent variable is ____ .

112 In the equation $m - 8 = a$, the independent variable is ____ .

113 The equation that represents the relationship between the number of months " \ " and the total money she saved "y" is $y = 50$ \, then.

-The independent variable is ____ .

-The dependent variable is ____ .

-The money she saved in 6 months is ____ .

114 If the equation is " $y - x + 4$ ", then the rule is ____ .

115 The mean of the values " 8 , 9 , 2 , 7 , 6 , 4 , 6 " is ____ .

116 The median of the values " 8 , 2 , 10 , 1 , 3 , 7 , 2 " is ____ .

117 The mode of the values " 9 , 2 , 8 , 3 , 7 , 3 " is ____ .

118 Range = ... —

119 It is easier to find the range using a .... or _____ .

120 The range cannot be found using _____ .

121 The range for the values "9, 2, 4, 1, 8, 5" is _____ .

122 If the largest value is 15 and the least value is 3, then the range = _____ .

123 If the range of a set of values is 12 and the smallest value is 5, then the largest value is _____ .

124 If the range of a set of values is 25 and the largest value is 52, then the smallest value is _____ .

125 _____ and _____ are affected by the presence of outliers.

126 If the mean of the values is 3, 4, 6, x, 7 is 6, then the value of x is _____

127 The outliers in the set of values 5, 18, 3, 4, 7, 6 are _____ .

Third: **Answer the following:**

① Find :

ⓐ

$$3 \overline{)\ 2\ 8\ 5}$$

ⓑ

$$6 \overline{)\ 1,728}$$

ⓒ

$$6 \overline{)\ 2,657}$$

d 31 | 1,519

e 23 | 14,484

f 42 | 26,544

2 Solve the following problems using standard division algorithm:

a Rana sells in her cafe cakes baked in one of the bakeries. Rana received an order for the delivery of 420 cakes, Rana placed the cakes in bags and in each bag contained 12 cakes . Find the number of bags?

b A baker prepared 252 pieces of baklava at a party.
If each tray contained 12 pieces of baklava,
how many trays will be needed to prepare all the baklavas?

c If the total price of 25 books is 2,825 pounds,
what is the price of 36 books ?

d The school library received 45 boxes, of 84 books each.

These books will be distributed among 12 cupboards.

How many books will be there in each cupboard?

e Hazem has 5 packs of red pencils, each with 32 pencils, and 4 boxes of blue pencils each pack has 16 pencils.

He wants to distribute them evenly to 8 of his friends.

How many pencils will each friend get?

f A school has 604 boys and 521 girls, it is intended to divide the boys and girls equally into 25 classes in the school. How many students will be in each class?

3 Complete using the opposite Venn diagram:

a The two numbers are .... and ....

b The common prime factors are ....

c The GCF is ....   **d** The LCM is ....
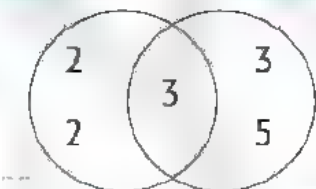
e Are the two numbers relatively prime?   (Yes **or** No)

4 Complete using the opposite Venn diagram:

a The two numbers are .... and ....

b The common prime factors are ....

c The GCF is ....   **d** The LCM is ....
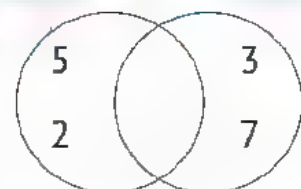
e Are the two numbers relatively prime ?   (Yes **or** No)

5 Ahmed wants to grow 20 jasmine plants and 30 phil plants in his garden. Ahmed wants to plant these plants in basins so that each basin contains the same number of the two types of plants.

Write a numerical expression that represents the largest number of ponds he can plant.

```
        =
        =
GCF =
```

6 A merchant has 16 kg of oranges and 24 kg of apples, so if the merchant wants to divide the oranges and apples in bags of the same mass, what is the largest number of bags that can be made for each type of fruit? Does each bag have the same mass? How many kilograms of oranges will each bag contain? How many kilograms of apples will each bag contain?

```
        =
        =
GCF =
```

7. Mahmoud wanted to divide 28 pens and 42 notebooks into groups, so that each group contained the same number of tools. What is the largest number of groups that can be configured for each type of instrument to have for each same number group? How many pens are in each group? What is the number of notebooks in each group?

```
        =
        =
GCF =
```

8 Find the GCF and LCM using Venn diagram for numbers 24 and 16:

GCF = ...

LCM = ...

24 =

16 =

9) Find the result:

a $4\dfrac{1}{4} + 2\dfrac{7}{12} =$

b $7\dfrac{1}{5} + 3\dfrac{1}{4} =$

c $4\dfrac{2}{5} - 3\dfrac{1}{4} =$

d $7\dfrac{1}{2} - 3\dfrac{3}{4} =$

10 Ahmed has $5\dfrac{3}{4}$ LE and Tamer has $15\dfrac{1}{2}$ LE. Find out the total sum of what they have altogether.

11 Shaima bought a pen for $9\dfrac{1}{2}$ pounds, a ruler for $5\dfrac{1}{4}$ pounds, and a notebook for 4 pounds. How much did Shaima pay?

12 Wael collected $3\dfrac{3}{4}$ kilograms of dates and gave $2\dfrac{1}{5}$ kilograms to his friend. How many kilograms left with Wael?

13 A road is 15 km long. it's paved in three stages; $6\frac{2}{5}$ km in the first stage, $4\frac{1}{2}$ km in the second stage. How long is the distance paved in the third stage?

14 Compare using (< , = , or >):

a 2 3   **b** - 6 7 5   **c** 8 5

d −1.5 .... - 1.5   **e** $\left|3\frac{1}{4}\right|$ .... $\left|4\frac{1}{3}\right|$ **f** - 3.8 .... -1.8

g 5.07 .... $|-5.07|$ **h** $|-2.5|$ .... $|-3.6|$ **i** - 0.7 .... $|-0.7|$

15 Arrange each group of the following numbers in ascending and descending order:

a
$$8 , -17 , |-3| , -9 , |12|$$

Ascending order: .... , ... , ... , ... ,

Descending order: .... , ... , ... , ... ,

b
$$-\frac{3}{4} , \frac{5}{8} , \frac{1}{2} , \frac{3}{4} , \frac{1}{4}$$

Ascending order: .... , ... , ... , ... ,

Descending order: .... , ... , ... , ... ,

16 Follow the order of performing operations, then find the value of each of the following:

a $48 \div 8 \times 2$

= ....

= ....

b $4 + 5 \times 6$

= ....

= ....

c $15 \div 3 + 7$

= ....

= ....

d $5 \times 2 + 3 \times 4$

= ....

= ....

e $(3 + 6) \times 2$

= ....

= ....

f $[3 \times (9 - 4)] - 10$

= ....

= ....

g $3^2 + 2 \times 5$

= ....

= ....

h $3 \times 2^3 \div 12$

= ....

= ....

i $(2^4 - 1) \div (3^2 - 4)$

= ....

= ....

17 Find the value of the algebraic express on in each of the following:

a $4a - 15 \div 3$ [If $a - 2$]

= ....

= ....

= ....

b $(6b + 3) \div 7$ [If $b - 3$]

= ....

= ....

= ....

c $g^2 \quad 32 \div 8$ [If $g = 5$]

= ....

= ....

= ....

d $3^b + 6 \times (b^2 - 3)$ [If $b = 2$]

= ....

= ....

= ....

18. Write a mathemat cal expression that expresses each of the following situation:

a Bassem runs one kilometer in 15 minutes.

The number of kilometers that Bassem runs in "t" minutes is

ⓑ In a car park, an amount of 10 pounds is collected for parking the car for first hour, and 5 pounds are added for each hour of waiting after the first hour.

The amount collected for parking the car for "h" hours after the first hour is ____

ⓒ Hala receives a daily wage of "p" pounds. If her expenses in 10 days amounted of 325 pounds.

The amount remaining with her in 10 days is ____

19 Find the value of the variable in each of the following equations:

ⓐ $4a - 15 \div 3$ [If a – 6]

= ____

= ____

ⓑ y – 6 – 11

= ____

= ____

ⓒ 3 b = 45

= ____

= ____

ⓓ a ÷ 6 = 3

= ____

= ____

20 Diaa saves 150 pounds every month from expenses, so if the amount that he saves in (x) month is (y) pounds, then:

ⓐ The equation that represents this situation is ____ .

ⓑ The independent variable is ____ .

ⓒ The dependent variable is ____ .

ⓓ What Diaa saves in a year is ____ .

21 If Hazem owns a discount card of 50 pounds. Complete:

ⓐ The equation represents the relationship between Hazem's purchases amounted (x) pounds, and the amount to be paid after the discount (y) pounds is ____

ⓑ The independent variable is ____ .

ⓒ The dependent variable is ____

ⓓ The required amount if the purchase price before the discount is 420 pounds is ____ .

22 Omar manufactures hats, producing 10 hats per day. Complete the following table representing the number of working days (x) and the number of hats produced (y).

Write an equation that shows the relationship between the variables x and y and then represent it graphically.

x	2	4	7	9
Y				
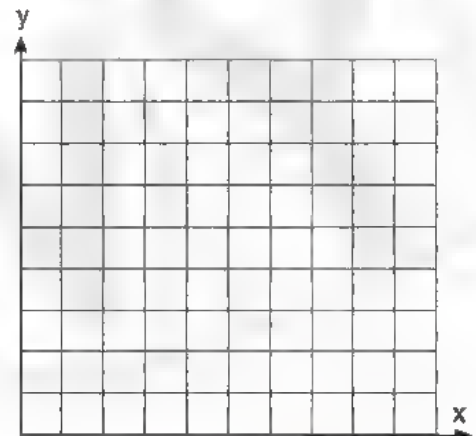
The equation: ....

23 Using the following histogram, complete the following interval table:

Intervals	Frequency
0 – 9	....
10 – 19	....
20 – 29	....
30 – 39	....
40 – 49	....
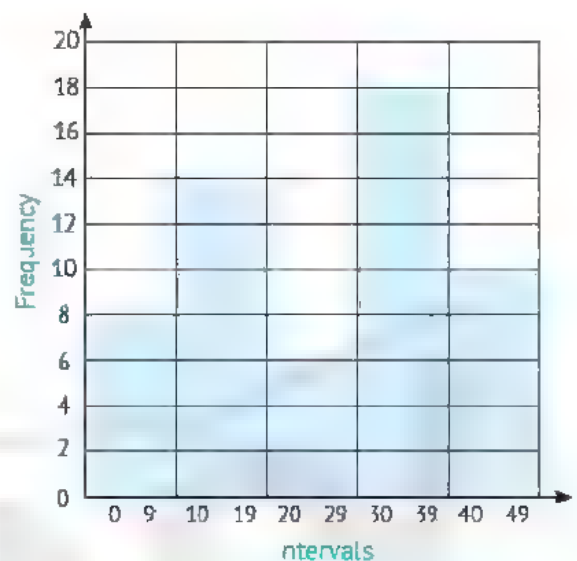
24. The box plot for each of the following groups of values:

$$3 , 8 , 7 , 2 , 10 , 12 , 9 , 2 , 10 , 9$$

a Arrangement:

b Lower Quartile: ....

c Median:

d Upper Quartile:

e

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
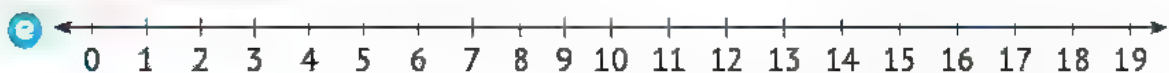
25 If the heights of 5 pupils in the first preparatory grade in centimeters are: 132 , 131 , 126 , 128 , 133 .

Calculate the mean for these heights.

26 Find 5- points summary using the following box plots:
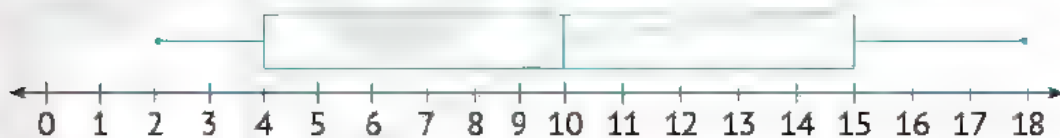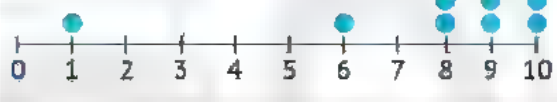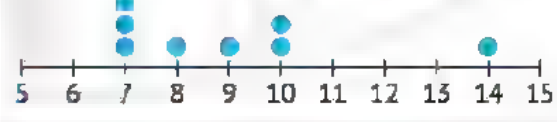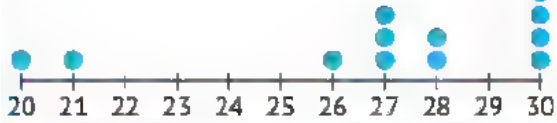
a The Minimum Value: **b** The Lower Quartile:

c The Median: **d** The Upper Quartile:

e The Maximum Value:

27 The following table represents the temperatures recorded in a city in a week:

Day	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Temperature	24°	20°	30°	21°	23°	22°	21°

Using the values shown in the previous table to find:

a The Mean:

b The Median:

c The Mode:

d The Range:

e The Outliers:
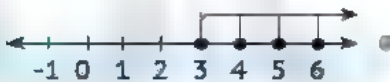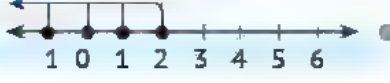
28 Complete the following table using the dot plot graph for each of the following:

Graph		Mean	Median	Mode	Outliers
a					
b					
c					
d					

29 Match each of the following with the appropriate graph(s):

a Representation of individual values • • Histogram **1**

b Representation of hundreds of notes • • Dot plot **2**

c Representation of data clusters and gaps in the data • • Box plot **3**

30 Match each number line to the inequality it represents:

a (number line -1 0 1 2 3 4 5 6) • • x < 3 **1**

b (number line -1 0 1 2 3 4 5 6) • • x ⩾ 3 **2**

c (number line -1 0 1 2 3 4 5 6) • • x > 3 **3**

d (number line 1 0 1 2 3 4 5 6) • • x ⩽ 3 **4**

31 Use the number line to represent each of the following inequalities:

a $x < 5$
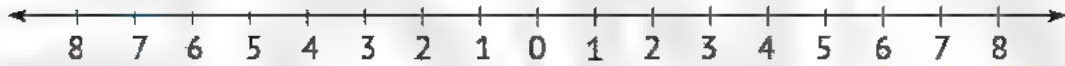
b $x \geqslant -2$
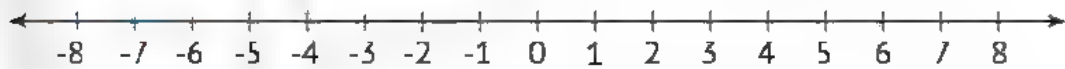
Assessments on Units

Assessment on Unit 1

First

a) 34 b) 6 c) 131
d) 1 e) prime f) 1
g) their product
h) $(6 \times 7) + (6 \times 5)$ i) $2 \times (8 + 3)$
j) $4\frac{1}{4}$

Second

a) 1044 b) 351 c) 2
d) 2 e) 2 f) 1
g) their product h) $(8 \times 2) + (8 \times 7)$
i) $2\frac{3}{10}$

Third

❶ a) 725 R2 b) 108
   c) $8\frac{5}{24}$ d) $3\frac{13}{20}$
❷ $840 \div 15 = 56$ buildings
❸ GCF = 8 , LCM = 48
❹ a) 8 , 15 b) none c) 1
   d) 120 e) yes
❺ • GCF = 6
   • 3 red roses • 2 white roses
❻ $25 - (9\frac{1}{2} + 5\frac{1}{4}) = 10\frac{1}{4}$ pounds

Assessment on Unit 2

First

a) –8 b) 0 c) 0
d) rational number e) natural number
f) $\frac{7}{?}$ g) $-\frac{3}{10}$ h) 34
i) ? 7 j) 0

Second

a) –7 b) 0 c) –11.5
d) 1 e) same , opposite
f) –7 , –8 g) integer , rational
h) – 1.5 i) 8 , –8 j) 5.6

Third

① a) < b) < c) = d) <
② $|0.8|, 0.55, |-\frac{1}{2}|, -\frac{1}{4}, -\frac{3}{5}$

Accumulative Assessments ❶ on Units 1–2

First

a) 6 b) 72 c) $2 \times 2 \times 5$
d) < e) <

Second

a) $(6 \times 7) + (6 \times 5)$ b) –2
c) –10 d) –20 e) 7 , –7

Third

a) $2825 \div 25 = 113$ pounds
b) GCF = 9 , 9 plants

Accumulative Assessments ❷ on Units 1–2

First

a) $-4\frac{2}{3}$ b) 35 c) –7
d) > e) –5

Second

a) 0 b) –1.25 c) $2 \times (8 + 6)$
d) 42 e) $5\frac{3}{10}$

Third

❶ ⓐ $7\frac{19}{24}$ ⓑ $2\frac{1}{4}$

❷ ⓐ 24 , 90   ⓑ 6   ⓒ 360

Assessment on
Unit 3

First

ⓐ 3   ⓑ 3   ⓒ 2
ⓓ $2y - 3$ ⓔ $25 - h$ ⓕ 5^3
ⓖ –   ⓗ 15 b   ⓘ 2
ⓙ first choice

Second

ⓐ $s - 10$ ⓑ 7   ⓒ $3n$, $2n$
ⓓ $2(w - 5)$ ⓔ subtract 5 from 3 times x
ⓕ 6 n   ⓖ 80   ⓗ 3^6
ⓘ 0   ⓙ 1

Third

❶ ⓐ $9n + 20$
    ⓑ ① 2   ② 9   ③ 20
❷ not equivalent

Accumulative Assessments ❷
on Unit 1 - 3

First

ⓐ 138   ⓑ 12   ⓒ 2
ⓓ $x - 9$ ⓔ 1

Second

ⓐ 1989   ⓑ 3.2   ⓒ 30
ⓓ 7 z   ⓔ 4^2

Third

ⓐ 5   ⓑ $0.8 , \frac{1}{2} , |-0.25| , -\frac{1}{5} , -\frac{3}{4}$
ⓒ $\frac{t}{15}$ or, $\frac{1}{15}t$

Accumulative Assessments ❷
on Unit 1 - 5

First

ⓐ 36   ⓑ a   ⓒ 3.7
ⓓ 2^5 ⓔ 2^4

Second

ⓐ 2   ⓑ 1   ⓒ 2
ⓓ 8x
ⓔ add 4 to 3 times b

Third

❶ ⓐ 34   ⓑ 2

❷ $3\frac{3}{4} - 2\frac{1}{5} = 1\frac{11}{20}$ kg

Assessment on
Unit 4

First

ⓐ 4   ⓑ 4   ⓒ 8
ⓓ 3   ⓔ $x > 4$ ⓕ $x < -2$
ⓖ $x < 0$ ⓗ -7
ⓘ $x < 4$ ⓙ the second graph

Second

ⓐ 2   ⓑ 5   ⓒ 4
ⓓ 6   ⓔ 12   ⓕ $3x = 15$
ⓖ $x < -6$ ⓗ $x \geqslant 3$ ⓘ $x > 0$
ⓙ 9 belongs to both

Third

❶ ⓐ 9   ⓑ 6
❷ ⓐ $x > 1$ or $x > -2$ ⓑ $x < -3$ or $x < -2$

Accumulative Assessments ❶
on Units 1-4

First

- **a** 1
- **b** -4
- **c** -5
- **d** 9
- **e** 0

Second

- **c** 2
- **b** 7
- **f** $y - 3$
- **d** 2
- **e** $x \geq -8$

Third

- **a** $x + 2 = 9$, $x = 7$
- **b** $3x = 12$, $x = 4$

Accumulative Assessments ❷
on Units 1-4

First

- **a** their product
- **b** -8
- **c** 2
- **d** $x + 5$
- **e** 8

Second

- **a** their product
- **b** $8 \times (9 + 2) = (8 \times 9) + (8 \times 2)$
- **c** 3
- **d** 1
- **e** $x < -6$

Third

- **❶** $(604 + 521) \div 25 = 45$ students
- **❷** **a** 12
- **b** 8

Assessment on
Unit 5

First

- **a** b
- **b** r
- **c** exam result
- **d** the number of days you go to the club
- **e** $y = 6 - x$
- **f** $y = 2(x + 5)$

- **g** subtract 8 then divide by 3
- **h** 8
- **i** 18
- **j** 32

Second

- **a** a
- **b** ① size of garage ② number of cars
- **c** What Ahmed saves in all week , what Ahmed saves everyday
- **d** ① $y = x + 2.4$, ② 6.4
- **e** ① $y = x + 4$, ② 4
- **f** ① add 15 then divide by 4 , ② 5

Third

x	1	2	3	4
y	1.5	3	4.5	6

- The equation
  $y = 1.5 x$

number of days

Accumulative Assessments ❶
on Units 1-5

First

- **a** 1
- **b** 0
- **c** -3
- **d** 4s
- **e** 3

Second

- **a** 8
- **b** 21
- **c** 10
- **d** $x < 2$
- **e** multiply by 5

Third

- **❶** **a** $y = 150x$
- **b** x
- **c** y
- **d** 1800 pounds
- **❷** $5950 \div 17 = 350$ cups

Accumulative Assessments ②
on Units 1-6

First

a) 15
b) -1
c) $(m + 18) \div 3$
d) $3 \times 3 \times 3 \times 3$
e) 3

Second

a) 2, 3, 5, 7
b) 9, 3, 6
c) -2, -1, 0, 1
d) same
e) 12

Third
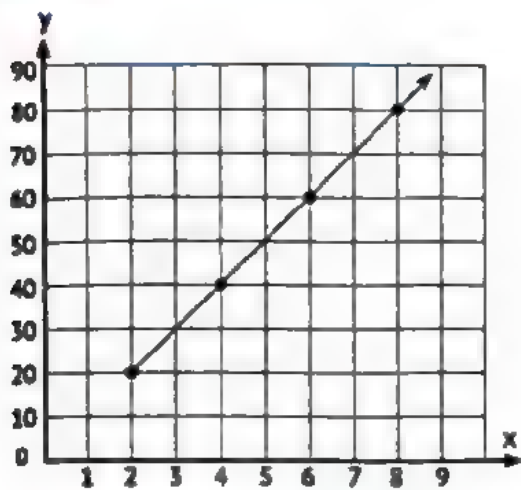
• The equation is $y = 10x$

Assessment on
Unit 6

First

a) It results in a lot of different answers
b) favorite colors
c) ages
d) weight
e) names
f) histogram
g) dot plot
h) both bar graph and histogram
i) 8
j) 8

Second

a) statistical , non statistical
b) numerical , categorical

---

c) numerical
d) numerical
e) histogram
f) bar graph
g) 7
h) 1
i) dot plot
j) histogram

Third

1
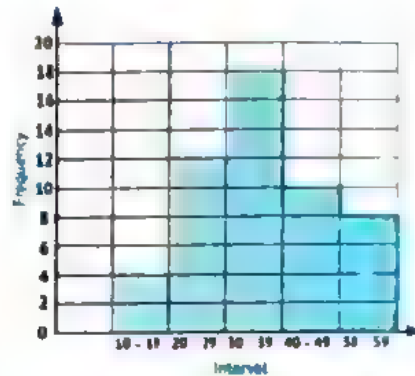
2 • order: 2, 2, 3, 7, 8, 9, 9, 10, 10, 12
• Min: 2   • Max: 12   • Median. 8.5
• Upper: 10   • Lower: 3, (Draw by your self)

3 a) ① 3, dot plots   ② 52, both
        ③ 2, dot plots   ④ 1, dot plots
        ⑤ 9, dot plots
b) Dot plots
   ① How many students weight 50 kg?
   ② How many students weight less than 40 kg?
• Box plots
   ① What is the upper quartile?
   ② What is the lower quartile?

Accumulative Assessments ③
on Units 1-6

First

a) 1
b) 0
c) rational
d) 3
e) $x < -7$

Second

a) 6, 4
b) 65 b
c) 7
d) $x > 0$
e) $x > 1$ or $x \geqslant 2$

Third

1. (a) 2   (b) 10   (c) 6
   (d) 8   (e) 3
2. (a) 34   (b) 29

Accumulative Assessments 2
on Units 1-6

First

(a) 11   (b) $-\frac{5}{4}$ (c) 2
(d) $\frac{1}{2}(a-7)$ (e) >

Second

(a) non statistical   (b) 6   (c) 2
(d) 1   (e) 3b , 2b

Third

(a) 3556 ÷ 14 = 254 microbuses

(b)

Assessment on
Unit 7

First

(a) 63   (b) 6   (c) median
(d) histogram   (e) range   (f) decrease
(g) both of mean and median   (h) 15
(i) 3   (j) 7

Second

(a) 5   (b) 3,5   (c) 14
(d) 18   (e) mean , range

Third

1. (a) 24   (b) 24   (c) 24
   (d) 10   (e) 29

---

2. (a) 25   (b) 25   (c) 25
   (d) 8   (e) 30

Accumulative Assessments 1
on Units 1-7

First

(a) 1   (b) $4\frac{1}{4}$
(c) $-2,-3$ (d) $2(x+7)$
(e) Bar graph

Second

(a) 11   (b) -5.9 (c) x
(d) $x > -1$ (e) z , m

Third

1. (a) 21   (b) 10
   (c) 14   (d) 11
2. (a) 10   (b) 2   (c) 6
   (d) 6   (e) 8

Accumulative Assessments 2
on Units 1-7

First

(a) $2 \times (8+3)$ (b) even number   (c) 19
(d) 6   (e) Favorite colors

Second

(a) 2   (b) -15 (c) 5 , -5
(d) 3   (e) words

Third

• 8 , 14 , 6 , 18 , 10

Final Revision

First

1 27
2 6
3 157
4 1
5 has only 2 factors
6 2 × 2 × 3
7 8
8 their product
9 their product
10 1
11 35
12 0
13 11
14 even
15 2 × 2 × 5
16 18
17 1
18 their product
19 their product
20 40
21 1
22 35
23 25
24 210
25 1
26 (6 × 7) + (6 × 5)
27 4 × (9 + 3)
28 4
29 −4
30 −2
31 −15
32 12
33 0
34 −6
35 −1
36 0
37 <
38 >
39 −5
40 −1
41 −8
42 <
43 8
44 rational number
45 even number
46 natural
47 $\frac{3}{4}$
48 $-\frac{6}{1}$
49 >
50 $-\frac{8}{4}$
51 negative
52 rational
53 5
54 −2 ; 3
55 −8
56 3.7
57 0
58 2.7
59 farther from
60 2
61 −3
62 x
63 2
64 5y , 2y
65 none
66 9
67 m − 10
68 60 − x
69 x − 5
70 3
71 x + 10
72 2 x − 3
73 $\frac{1}{2}$ (a-7)
74 n + 7
75 x , +
76 4s
77 15b
78 4 × 4
79 1
80 1
81 2^5
82 0
83 =
84 >
85 19
86 3^3
87 120 m
88 5d + 20
89 15
90 7
91 2
92 8
93 8
94 x > −1
95 x < 5
96 x ⩽ −7
97 3 doesn't belong to any of them

(continued)

88 each includes all values to the left of 4
90 − 9 5
100 6
101 x < 0
102 w
103 a
104 distance traveled
105 the number of correct answers
106 y = 9 − x
107 y = 2x + 5
108 divide by 3
109 subtract 3 then divide by 2
110 22
111 0
112 results in a lot of different answers
113 favorite colors
114 favorite TV shows
115 histogram
116 dot plots
117 bar graph
118 all
119 each value is represented by a point.
120 each bar represents a number or categorical
121 the bars must touch
122 bars are used to represent data
123 both of bar graph and histogram
124 all
125 histogram
126 bar graph
127 all
128 can display numerical and categorical
129 50
130 5
131 6
132 6
133 3
134 6
135 two modes
136 increases
137 Both
138 18
139 range
140 histogram
141 $-4\frac{2}{3}$
142 0.5
143 second one
144 x < 2
145 x + 2 = 9
146 6
147 9
148 3
149 5
150 53
151 none
152 mean
153 decrease
154 9
155 35
156 12

Second

1 48
2 9
3 1989
4 4886
5 2
6 2
7 2
8 3
9 11
10 2 , 3 , 5 , 7
11 70
12 1
13 their product
14 prime
15 2
16 2
17 prime number

18 2 , 2 , 7   **19** 1

20 their product   **21** 5 , 3 , 5 , 6

22 7 , 2 , 4   **23** 9 , 2 , 8 , 8   **24** 9 , 4 , 6

25 the same distance \ different

26 –10   **27** –8   **28** 0

29 1   **30** 1   **31** 0

32 1   **33** 0   **34** –1

35 0   **36** –2 , –1 , 0 , 1   **37** –1, –2, –3

38 –1, 0, 1, 2   **39** –1.5

40 integer , rational   **41** –7

42 –7 ; 8   **43** –5 ; 6

44 natural integer , rational   **45** rational

46 $-\dfrac{5}{2}$ **47** –1.75   **48** 5

49 $\dfrac{7}{9}$ **50** $\dfrac{3}{4}$ **51** 0.03

52 0.7   **53** 5 , –5   **54** 7

55 9   **56** –4   **57** 18

58 equal   **59** x   **60** 3

61 2   **62** 6x , 2x   **63** 3.2

64 3b   **65** z + 36   **66** x – 5

67 m + 12   **68** 12 – d   **69** 7z

70 five times a increased by seven

71 4s   **72** 45   **73** 81

74 not equal   **75** 33   **76** s-10

77 7   **78** 3n,2n   **79** 2 (w – 5)

80 80   **81** base , exponent

82 4^7 **83** 6^3 **84** 7^2

85 4^5 **86** 6 , 4   **87** 4

88 4   **89** 3^6 **90** 0

91 1   **92** 8   **93** 7 × 7

94 8   **95** x + 1 = 8,7   **96** 5

97 11   **98** 2   **99** 9

100 4   **101** 3   **102** 5

103 3   **104** x < –6

105 6 belongs to both   **106** x > –1

107 x < 2   **108** x > –9   **109** r , e

110 a

111 number of box , the price of box

112 m   **113** x , y , 300

114 add 4   **115** 6   **116** 3

117 3

118 greatest value – smallest value

119 dot plots or box plots   **120** histogram

121 8   **122** 15 – 3 = 12   **123** 17

124 27   **125** Mean , range

126 10   **127** 18

Third

1 (a) 95   (b) 288   (c) 442 RS

    (d) 49   (e) 629R17   (f) 632

2 (a) 35 bags   (b) 21 trays

    (c) 2825 ÷ 25 = 113 , 113 × 36 = 4068 pounds

    (d) 45 × 84 = 3780 , 3780 ÷ 12 = 315 books

    (e) 32 × 5 = 160 pencils

4 × 16 = 64 pencils

Total = 160 + 64 = 224 pencils

Each friend = 224 ÷ 8 = 28 pencils

    (f) each class = 1125 ÷ 25 = 45 students

3 (a) 12 , 45   (b) 3   (c) 3

    (d) 180   (e) no

4 (a) 10 , 21   (b) none   (c) 1

    (d) 210   (e) yes

5 10

6 greatest 8

2 oranges , 3 apples

7 14 groups

2 pens , 3 notes

8 GCF = 8 , LCM = 48

9 (a) $6\dfrac{5}{6}$ (b) $10\dfrac{9}{20}$

    (c) $1\dfrac{3}{20}$ (d) $3\dfrac{3}{4}$

10 $21\dfrac{1}{4}$ **11** $18\dfrac{3}{4}$

12 $1\dfrac{11}{20}$ **13** $4\dfrac{1}{10}$

14 (a) <   (b) <   (c) <

    (d) >   (e) <   (f) <

    (g) =   (h) <   (i) <

14 **a** Ascending $-17, -9, |-3|, 8, |12|$

Descending $|12|, 8, |-3|, -9, 17$

b Ascending: $-\dfrac{3}{4}, \dfrac{1}{4}, \dfrac{1}{2}, \dfrac{5}{8}, \dfrac{3}{4}$

Descending: $\dfrac{3}{4}, \dfrac{5}{8}, \dfrac{1}{2}, \dfrac{1}{4}, -\dfrac{3}{4}$

15 **a** 12   **b** 34   **c** 12

   d 22   **e** 18   **f** 5

   g 19   **h** 2   **i** 3

16 **a** 3   **b** 3

   c 21   **d** 15

18 **a** $\dfrac{t}{15}$ **b** $5h + 10$ **c** $10p - 325$

19 **a** 19   **b** 17

   c 15   **d** 18

20 **a** $y = 150x$ **b** x

   c y   **d** 1800

21 **a** $y = x - 50$ **b** x

   c y   **d** 370

22 $20, 40, 70, 90$, $y = 10x$

23 $8, 14, 6, 18, 10$

24 **a** $2, 2, 5, 7, 8, 9, 9, 10, 10, 12$

   b 3   **c** 8.5

   d 10

   e

25 130

26 **a** 2   **b** 4   **c** 10

   d 15   **e** 1

27 **a** 23   **b** 22   **c** 21

   d 10   **e** 30

28 **a** $8, 9, (9, 10), 1$

   b $14, 14, 11, 19$

   c $9, 8.5, 7, 14$

   d $27, 27.5, 30, (20, 21)$

29 **a** 2   **b** 3   **c** 1

30 **a** 2   **b** 4

   c 3   **d** 1

31 **a**

   b

كيفية طباعة صفحات معينة من ملف معين

مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9

خطوة 2
اختيار اسم الطابعة بتاعتك

خطوة 3
كتابة الصفحات المراد طباعتها
نكتب رقم 4 ثم نكتب الشرطة
دي – ثم نكتب 9

خطوة 1

خطوة 4
اختيار نوع الورق

خطوة 5
اختيار A4

خطوة 6
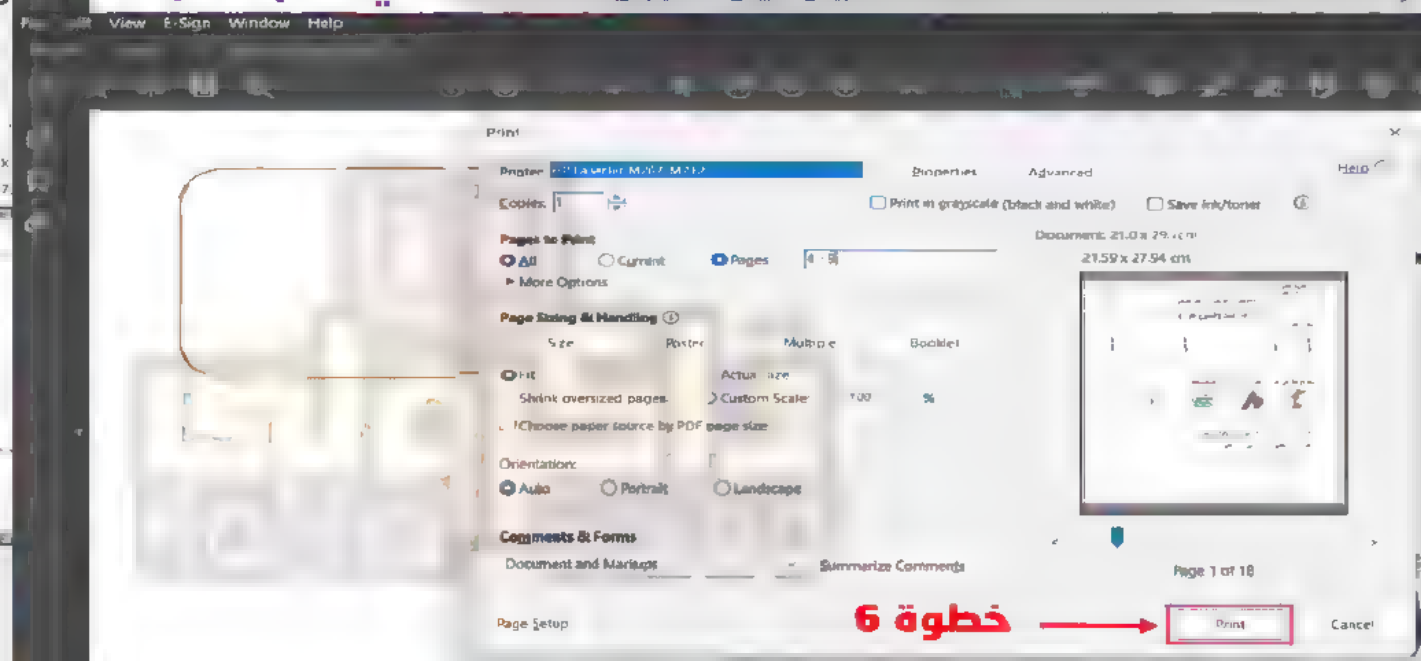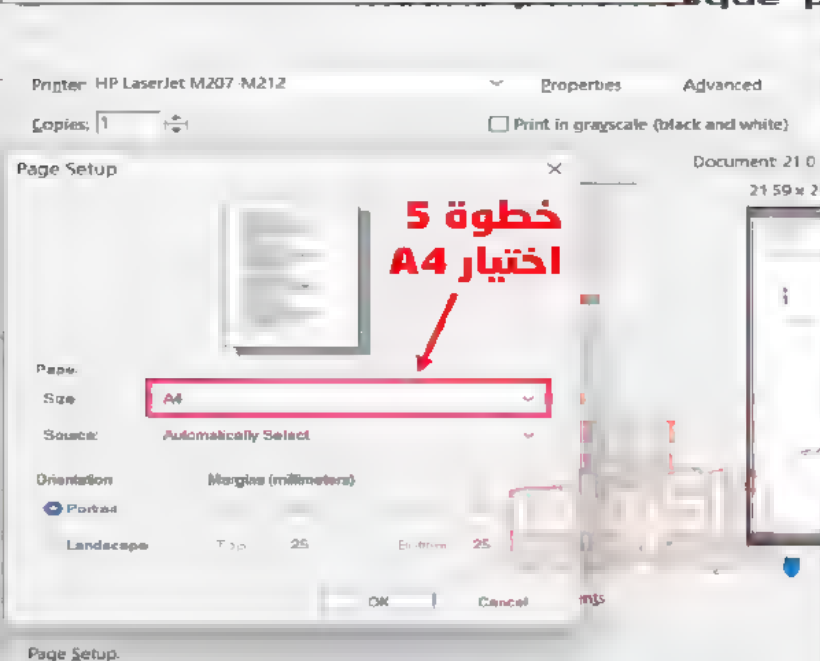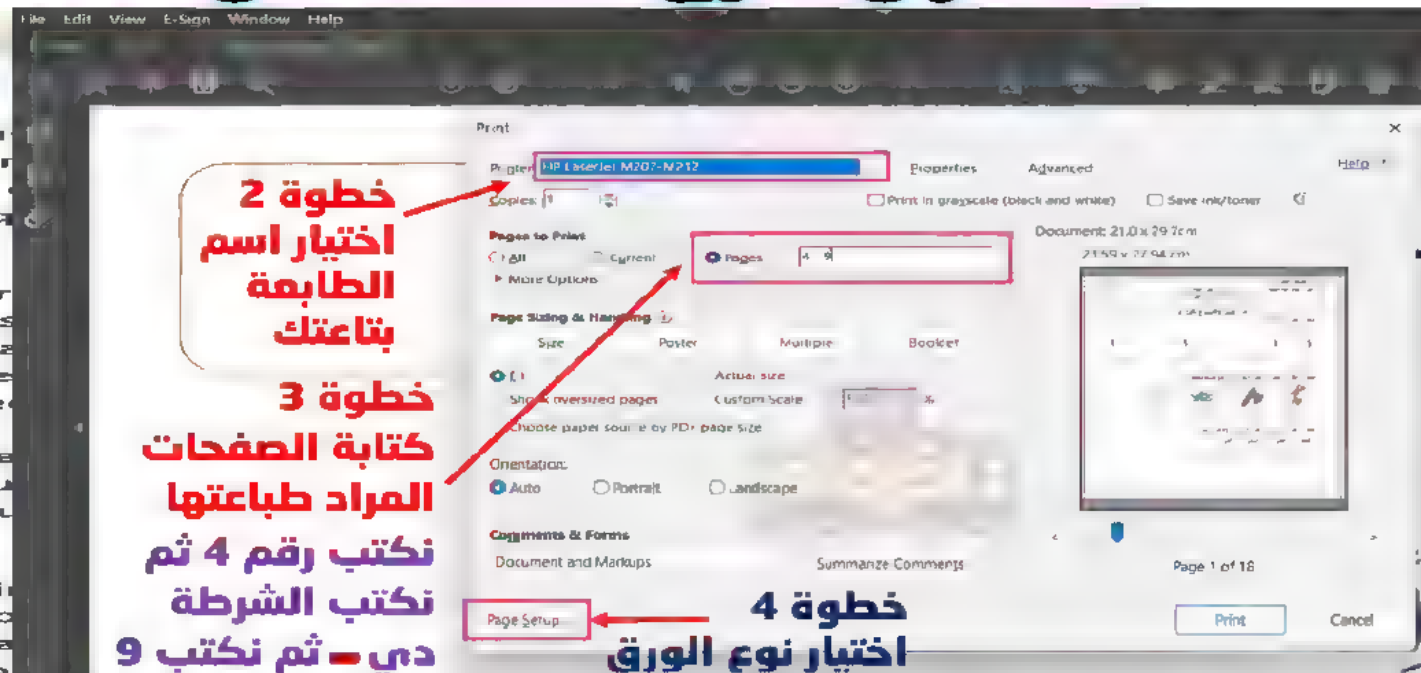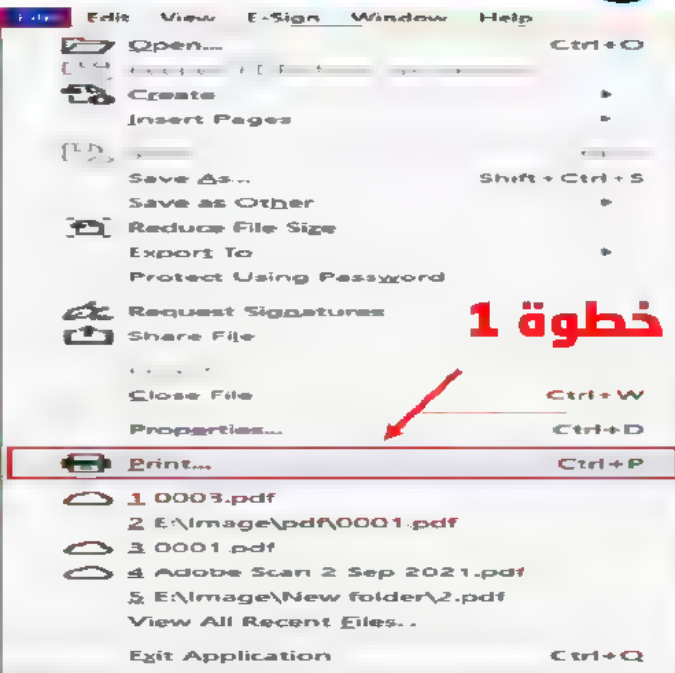
المراجعة رقم (2)

الترم الاول

1. Choose the correct answer.

1. 235 is divisible by _____

    A. 2   **B.** 3   **C.** 5   **D.** 10

2. The number _____ is divisible by both 2 and 5

    A. 206   **B.** 425   **C.** 524   **D.** 620

3. Which of the following is divisible by 4 ?

    A. 441   **B.** 160   **C.** 483   **D.** 514

4. All the following are divisible by 6 except _____

    A. 924   **B.** 120   **C.** 663   **D.** 252

5. "331 + _____ " is divisible by 3

    A. 0   **B.** 1   **C.** 2   **D.** 3

6. If the prime factorization of a number is $2 \times 2 \times 2$, then the number is _____

    [Alexandria – West 24]

    A. 8   **B.** 4   **C.** 6   **D.** 222

7. 4 is a factor of _____   [El Menia – Matay 24]

    A. 40   **B.** 39   **C.** 38   **D.** 37

8. The number which its prime factors are 2 , 3 and 5 is _____   [El Beheira – Kafr El Dawar 24]

    A. 10   **B.** 15   **C.** 30   **D.** 13

9. The common factor of all numbers is _____

    [Kafr El Sheikh – Bayala 24 , El Menofia – El Sadat 24]

    A. 0   **B.** 1   **C.** 2   **D.** 3

10. Which of the following are relatively prime numbers ?   [Ismailia 24]

    A. 4 and 6   **B.** 8 and 15   **C.** 8 and 18   **D.** 8 and 24

11. The G.C.F of two relatively prime numbers is _____   [Giza - Bolak 24]

    A. 0   **B.** 1   **C.** 2   **D.** 3

12. The G.C.F of 6 and 9 is _____   [Cairo – El Mokattam 24]

    A. 3   **B.** 18   **C.** 36   **D.** 1

13. The G.C.F of 6 and 10 is _____   [Cairo – El Zaitoun 24]

    A. 2   **B.** 3   **C.** 6   **D.** 10

14. The G.C.F of 4 and 9 is _____   [Cairo – El Maadi 24]

    A. 1   **B.** 4   **C.** 9   **D.** 36

15. The L.C.M of 4 and 12 is _____   [Port Said 24]

    A. 2   **B.** 4   **C.** 8   **D.** 12

16. In the opposite Venn diagram , the G.C.F is _____ [El Monofia – Sers El Layan 24]
    A. 60   B. 4
    C. 6   D. 20

17. In the opposite Venn diagram , the L.C.M is _____ [El Beheira 24]
    A. 2   B. 15
    C. 30   D. 10

18. In the opposite Venn diagram , the L.C.M is _____ [Cairo – El Mokattam 24]
    A. 1   B. 3
    C. 2×5 D. 30

19. $10 + 45 = 5 [\ \underline{\quad} + \underline{\quad}\ ]$ [Kafr El Sheikh – Bayala 24]
    A. 10 , 40   B. 5 , 40   C. 9 , 5   D. 2 , 9

20. $35 + 42 = \underline{\quad} [5 + 6]$ [Cairo – El Sahel 24]
    A. 35   B. 30   C. 6   D. 7

21. $\underline{\quad} + \underline{\quad} = 12 [5 + 1]$ [Kafr E. Sheikh – Bayala 24]
    A. 17 , 13   B. 60 , 12   C. 60 , 1   D. 5 , 12

22. $24 + 16 = \underline{\quad}$ [Ismailia 24]
    A. $16 [2 + 1]$ B. $8 [3 + 2]$ C. $2 [12 + 6]$ D. $4 [6 + 12]$

23. $5 + 12 = \underline{\quad} [5 + 12]$ [Giza – Awseem 24]
    A. 1   B. 5   C. 12   D. 60

24. $\frac{2}{7} + \frac{3}{7} + \frac{5}{7} = \underline{\quad}$ [E. Monofia – El Bagour 24]
    A. $\frac{8}{7}$ B. $\frac{9}{7}$ C. 1   D. $1\frac{3}{7}$

25. $1\frac{2}{5} + 3\frac{1}{5} = \underline{\quad}$ [Giza – Bolak 24]
    A. $3\frac{4}{5}$ B. $4\frac{3}{5}$ C. $3\frac{4}{10}$ D. $3\frac{1}{5}$

26. $\frac{1}{2} + \frac{1}{3} = \underline{\quad}$ [Port Said 24]
    A. $\frac{2}{5}$ B. $\frac{5}{6}$ C. $\frac{1}{6}$ D. $\frac{2}{6}$

27. $6\frac{1}{8} + \frac{3}{4} = \underline{\quad}$ [Cairo – El Mostabal 24]
    A. $7\frac{3}{4}$ B. $6\frac{7}{8}$ C. $6\frac{5}{8}$ D. $7\frac{4}{8}$

28. $5\frac{1}{2} + 3\frac{1}{5} = \underline{\quad}$ [Cairo – El Mokattam 24]
    A. $8\frac{2}{7}$ B. $8\frac{7}{10}$ C. $8\frac{1}{2}$ D. $8\frac{2}{5}$

29. $\frac{7}{9} - \frac{5}{9} = \underline{\quad}$ [Cairo 24]
    A. $\frac{14}{9}$ B. $\frac{2}{9}$ C. $\frac{75}{99}$ D. $\frac{14}{18}$

30. $\dfrac{11}{7} - \dfrac{8}{7} = $ —————— [El Beheira – kafr El Dawar 24]

    A. $\dfrac{3}{7}$ **B.** $\dfrac{19}{7}$ **C.** $\dfrac{3}{14}$ **D.** $\dfrac{19}{14}$

31. $\dfrac{3}{4} - \dfrac{1}{11} = $ —————— [Cairo – Rod El Farag 24]

    A. $\dfrac{2}{7}$ **B.** $\dfrac{37}{44}$ **C.** $\dfrac{29}{44}$ **D.** $\dfrac{2}{11}$

32. $\dfrac{3}{8} - \dfrac{1}{4} = $ —————— [Port Said 24]

    A. $\dfrac{3}{8}$ **B.** $\dfrac{1}{4}$ **C.** $\dfrac{1}{8}$ **D.** $\dfrac{3}{4}$

---

2. Complete the following.

1. Each number is divisible by ————

2. $4 \times$ ———— $= 24$, then ———— is a multiple of each of ———— and ————
, and also is divisible by each of ———— and ———— .

3. The common multiple of all numbers is ———— [El Fayoum – West 24]

4. ———— has one factor only. [Port Said – North 24]

5. $12 + 6 = 6 [$ ———— $+$ ———— $]$ [Cairo   El Mostabal 24]

6. $7 [5 + 3] = $ ———— $+$ ———— [Souhag 24]

7. $3 [$ ———— $+$ ———— $] = [3 \times 6] + [3 \times 7]$ [El Menia 24]

8. The L.C.M of 8 and 16 is ———— [Cairo – El Maadi 24]

9. In the opposite Venn diagram. [A.exandria – Middle 24]
    A. The two numbers are ———— and ————
    B. The G.C.F = ————
    C. The L.C.M = ————

10. In the opposite Venn diagram. [Port Sa d – Port Fouad 24]
    A. G.C.F = ————
    B. L.C.M = ————

11. In the opposite Venn diagram. [El Monofia – El Sadat 24]
    A. G.C.F = ————
    B. L.C.M = ————

12. In the opposite Venn diagram. [Port Said – East 24]
    A. G.C.F = ————
    B. L.C.M = ————

13. $\dfrac{2}{6} + \dfrac{4}{6} = $ ———— [Cairo – New 24]

14. $\dfrac{2}{5} + \dfrac{3}{10} = $ ———— [El Menia – Mallawi 24]

15. $\dfrac{4}{5} + \dfrac{1}{11} =$ —————— [Cairo 24]

16. $\dfrac{5}{6} - \dfrac{3}{8} =$ —————— [Kafr El Sheikh 24]

17. $3\dfrac{2}{5} - 1\dfrac{1}{10} =$ —————— [Beni Suef - Samesta 24]

3. Answer the following questions.

1. Find [G.C.F] & [L.C.M] of the two numbers [6 & 10] , using Venn diagram. [Giza - 6th October 24]

——————————————————

2. Find [G.C.F] of 7 and 12 using Venn diagram.
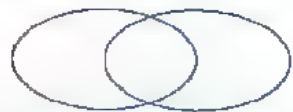
[Cairo   El Mokattam 24]

——————————————————

3. The following numbers shows the number of volunteers in 6 cities in Egypt.
The numbers are 21 , 102 , 225 , 120 , 100 and 101 complete :

A. The even numbers are ———— ——

B. The odd numbers are ———— —

C. Which numbers are divisible by 2 ?

——————————————————

4. The Food Bank wants to distribute 118 food boxes. Is it possible to distribute the boxes among 4 villages equally ? and why ?

——————————————————

5. Sylvia has 21 pencils and 14 erasers. She wants to put them in groups. What is the greatest number of groups that can be made so that each group has the same number of items ?

How many pencils will be in each group ? How many erasers will be in each group ? and write the expression which represents the total number of items.

General Revision

1. Choose the correct answer:

1. The integer which comes just before − 3 is _____ . [Ismailia 24]

    A. − 4   **B.** − 2   **C.** − 1   **D.** 0

2. The integer which comes just after − 1 is _____ [Port Said 24]

    A. − 2   **B.** 1   **C.** 0   **D.** − 2

3. Which of the following is an integer? [El Kalyoubia 24]

    A. $\dfrac{16}{5}$ **B.** $-\dfrac{2}{4}$ **C.** $-\dfrac{15}{5}$ **D.** − 0.4

4. − 83 _____ the set of natural numbers. [Assiut 24]

    A. is not a subset of   **B.** is a subset of

    C. does not belong to   **D.** belongs to

5. All the following numbers are rational except _____ [Cairo – El Mokattam 24]

    A. 1   **B.** $\dfrac{2}{7}$ **C.** $\dfrac{4-4}{7}$ **D.** $\dfrac{8}{5-5}$

6. The number which represents the temperature 3 below zero is _____ [Cairo – El Zaitoun 24]

    A. 0   **B.** − 3   **C.** − 5   **D.** 3

7. The integer which represents depth under sea level in meters is _____ [Cairo 24]

    A. 50   **B.** − 50   **C.** | − 10 | **D.** 0

8. The best subset of the number 0 is _____ number. [Cairo 24]

    A. a rational   **B.** an integer   **C.** a natural   **D.** a counting

9. The number $\dfrac{1}{3}$ belongs to the set of _____ numbers. [Giza Abo El Nomrous 24]

    A. integer   **B.** natural   **C.** rational   **D.** counting

10. 3.5 is _____ number. [El Menia – Matay 24]

    A. a counting   **B.** a natural   **C.** an integer   **D.** a rational

11. The sum of any two opposite numbers is _____ [Ismailia 24]

    A. 1   **B.** 2   **C.** 0   **D.** − 1

12. Any negative number _____ zero. [Alexandria – El Montaza 24]

    A. >   **B.** <   **C.** =   **D.** otherwise

13. The set of counting numbers _____ the set of rational numbers. [El Monofia – Sers El Layan 24]

    A. belongs to   **B.** does not belong to   **C.** is a subset of   **D.** is not a subset of

14. The set of integers is a subset of the set of ——— numbers. [Kafr El Sheikh 24]

    A. counting   **B.** prime   **C.** rational   **D.** natural

15. The number of integers on the number line is ——— [Assiut 24]

    A. 100   **B.** 2   **C.** infinite.   **D.** 1

16. -3 ——— -1 [Ismailia 24]

    A. <   **B.** >   **C.** ≥   **D.** =

17. $3.8 >$ ——— [El Menia – Maghagha 24]

    A. 4.1   **B.** 5   **C.** -6.8 **D.** 6

18. $|-1.34| <$ ——— [El Kalyoubia 24]

    A. 1.4   **B.** -1.29 **C.** -1.4 **D.** 1.19

19. -1.4 ——— $|-1.4|$ [Kafr El Sheikh 24]

    A. >   **B.** <   **C.** =   **D.** otherwise

20. -4 ——— $|-3|$ [Cairo 24]

    A. <   **B.** >   **C.** =   **D.** otherwise

21. $-\dfrac{1}{2}$ ——— zero [Giza – Abo El Nomrous 24]

    A. <   **B.** >   **C.** =   **D.** ≥

22. -3 ——— the additive inverse of -3 [Cairo– Al Salam 24]

    A. >   **B.** <   **C.** =   **D.** otherwise

23. $\dfrac{5}{9}-\dfrac{1}{3}$ ——— $\dfrac{3}{3}$ [Giza – October Garden 24]

    A. >   **B.** <   **C.** =   **D.** ≥

24. The distance between the number 5 and its opposite on the number line equals ——— units. [Cairo - El Maadi 24]

    A. -5 **B.** 10   **C.** -10 **D.** 0

25. The distance between 0 and -2 on the number line is ——— units.

[Cairo - El Mostabal 24]

    A. 0   **B.** 2   **C.** 4   **D.** -2

26. The number of integers between -2 and 2 is ——— [El Men a – Mallawi 24]

    A. -1 **B.** 2   **C.** 3   **D.** infinite.

27. The rational number between 2.4 and 2.5 is ——— [El Monofia - El Bagour 24]

    A. 2.53   **B.** 2.5   **C.** 2.43   **D.** 2.39

28. The rational number between -3.2 and -3.17 is ——— [Alexandria – Middle 24]

    A. 3.15   **B.** -3.15 **C.** -3.14 **D.** -3.18

29. ─────── is lying between 2.14 and 2.2   (Cairo 24, El Menia – Matay 24)

    A. 2.15   B. 2.21   C. 2.20   D. 2.22

30. The number of rational numbers lying between $\dfrac{-1}{4}$ and its opposite is ─────── (Cairo 24)

    A. 0   B. 1   C. 2   D. an infinite number.

31. The number $0.3 =$ ─────── [in the form of $\dfrac{a}{b}$]   (El Menia – Mallawi 24)

    A. $\dfrac{3}{1}$ B. $\dfrac{10}{3}$ C. $\dfrac{3}{10}$ D. $\dfrac{-3}{10}$

32. The number -1.5 in the form of $\dfrac{a}{b}$ is ───────   (El Monofia – Menof 24)

    A. $-\dfrac{1}{5}$ B. $-\dfrac{5}{1}$ C. $-\dfrac{15}{10}$ D. $-5\dfrac{1}{10}$

33. The additive inverse of -15 is   (El Menia – Maghagha 24)

    A. 1   B. -15 C. 15   D. 0

34. The additive inverse of $-|3|$ is ───────   (El Monofia – Shebin El Kom 24)

    A. -3 B. 3   C. $-|-3|$ D. $-\dfrac{1}{3}$

2. Complete the following.

1. $|-7| =$ ───────   (El Beheira - Kafr El Dawar 24)

2. The smallest counting number is ───────   (Qena 24)

3. The smallest non-negative integer is ───────   (Giza - 6th October 24)

4. $|-4| + 4 =$ ───────   (Qena 24)

5. $|4| \times |-4| =$ ───────   (Cairo 24)

6. $\left|-3\dfrac{1}{4}\right| + \left|3\dfrac{1}{4}\right| =$ ───────   (Cairo - El Nouzha 24)

7. The integer which comes directly before -1 is ───────   (Kafr El Sheikh 24)

8. The number ─────── is neither positive nor negative.   (El Beheira - Kafr El Dawar 24)

9. The number of integers between -5 and 3 is ───────   (Alexandria - Middle 24)

10. The additive inverse of -1 is ───────   (El Menia – Samalout 24)

11. The additive inverse of 2.5 is ───────   (El Menia – Deir Mawas 24)

12. The rational number 0.25 in the form of $\dfrac{a}{b}$ is ───────   (Alexandria – Borg El Arab 24)

13. Two opposite numbers, one of them is 8 , then the other number is ───────   (Giza - Abo El Nomrous 24)

14. The distance between 4 and $0 =$ ─────── units.   (Ismailia 24)

15. The smallest number of (0.2 , 0.12 , 1.1 and 2.1) is ───────   (El Monofia – Tala 24)

16. The distance between 5 and $|-5|$ on the number line is ─────── units.   (El Menia – Matay 24)

3. Answer the following questions.

1. Represent the numbers 4 ، −3 and 2 on the number line. [Cairo – El Salam 24]

2. Arrange the following numbers descendingly.

   7 ، −9 ، −8 ، −10 ، 0 ، −6 [El Monof a – El Shohada 24]

3. Arrange in an ascending order : [Port Said 24]

   1 ، −11 ، 3 ، −1 ، −8

4. Arrange the set of numbers in an ascending order.

   1.4 ، $−3\frac{1}{4}$ ، 2.1 ، $−1\frac{7}{8}$ [Cairo – El Zaitoun 24]

5. Order the given set of numbers from greatest to least, using the table shown.

   3.4 ، $−2\frac{1}{2}$ ، 0 ، $−4\frac{3}{7}$ ، $3\frac{1}{4}$ [El Monofia – Sers El Layan 24]

Greatest				Least
____	____	____	____	____

6. Write four rational numbers between 5.8 and 5.9

   _____ , _____ , _____ , _____ [El Menia – Mallawi 24]

1. Choose the correct answer.

1. Which of the following is a numeric expression ? [Cairo – El Salam 24]

    A. $12 \div 3 + 5$ B. $5x - 1$ C. $2y + 3$ D. $4z - 1$

2. Which of the following is an algebraic expression ? [Alexandria – El Montaza 24]

    A. $3^2 - 6$ B. $5x + 4$ C. $28 - 3^3$ D. $3(3 + 9)$

3. Which of the following is NOT a numeric expression ? [Kafr El Sheikh – Bayala 24]

    A. $5x + 3$ B. $5^2 + 4$ C. $3 - 1^2$ D. $3 \times 5 + 1$

4. In the algebraic expression : $3y + 6$, the coefficient is ———— [El Menia – Matay 24]

    A. 6   B. 3   C. y   D. 36

5. In the algebraic expression : $7 + 3x$, the coefficient is ———— [Cairo 24]

    A. 7   B. $3x$ C. 3   D. -7

6. The constant in the expression : $3x + 7$ is ——— [Kafr El Sheikh 24]

    A. 2   B. 3   C. 7   D. x

7. The constant in the expression : $2a + 7 + 4a$ is ——— [Port Said 24]

    A. 2   B. 4   C. 7   D. a

8. The constant in the expression : $z - 2y + 5x + 3$ is ——— [El Monofia El Shohada 24]

    A. $5x$ B. $2y$ C. z   D. 3

9. The number of terms of the expression : $x + 12$ is——— [Alexandria El Montaza 24]

    A. 2   B. 3   C. 1   D. 5

10. The number of terms of the expression : $3x + 2y + 5$ is——— [Cairo - Rod El Farg 24]

    A. 5   B. 3   C. 2   D. 1

11. The algebraic expression which consists of 3 terms is——— [El Menia – Mallawi 24]

    A. $2s + k + 7$ B. abc   C. 11r   D. 3

12. The number of like terms in the expression : $4n + 4 + 3m + 2$ is——— [Kafr El Sheikh 24]

    A. 1   B. 2   C. 3   D. 4

13. The like terms in the expression : $2x + 3x + 8$ are ——— [Giza - 6th October 24]

    A. $2x$ and 8   B. $2x$ and $3x$ C. $3x$ and 8   D. 8 and 3

14. Which of the following are like terms ? [El Monofia – Sers El Layan 24]

    A. $3x$ and $3y$ B. xy and yz C. $31x$ and $13x$ D. x and y

15. The age of Bassam now is x years , then his age after 3 years is ———

    [Cairo - El Nouzha 24]

    A. $x - 3$ B. x   C. $3x$ D. $x + 3$

16. Twice a number subtracted from it the number 5 is written as ——— [Cairo - El Maadi 24]

    A. $2(x - 5)$ B. $5 - 2x$ C. $2(5 - x)$ D. $2x - 5$

17. 7 less a number k is written as _____ [El Monofia - Tala 24]

    A. $k-7$ **B.** $7-k$ **C.** $7+k$ **D.** $\dfrac{k}{7}$

18. If we subtract 5 from the number x , we get _____ [Port Said 24]

    A. $x+5$ **B.** $5x$ **C.** 5^2+x **D.** $x-5$

19. 4 times a number less than 6 is written as _____ [Cairo 24]

    A. $4x+6$ **B.** $6-4x$ **C.** x^2-6 **D.** $4x-6$

20. $5 \times 5 \times 5 \times 5 = 5^{\underline{\quad}}$ [Luxor 24]

    A. 2   **B.** 3   **C.** 4   **D.** 20

21. The base in the exponential expression 9^2 is [Aswan 24]

    A. 9   **B.** 2   **C.** 9^2 **D.** otherwise.

22. $2^3 =$ [Cairo - El Mokattam 24]

    A. $2 \times 2 \times 2$ **B.** 3×3 **C.** 3^2 **D.** 3×2

23. Five squared = _____ [El Fayoum 24]

    A. 2^5 **B.** 5^2 **C.** 5^5 **D.** 2^2

24. 8 cubed = _____ [Ismailia 24]

    A. 8×8 **B.** 8^3 **C.** $8+8$ **D.** 8×3

25. Three squard add to five cubed equals _____ [Giza 24]

    A. $3 \times 3 + 5 \times 5$ **B.** $3^2 + 5^3$ **C.** $3^3 + 5^2$ **D.** $3^3 + 2^5$

26. The first operation you preform in : $20 \div 5 + (7-2)^2$ is _____ [Alexandria - El Montaza 24]

    A. addition.   **B.** subtraction.   **C.** exponent.   **D.** division.

27. The first operation you preform in the expression : $6 + 12 - 2 \times 2^2$ is _____ [Cairo - New 24]

    A. addition.   **B.** multiplication.   **C.** subtraction.   **D.** exponent.

28. $24 \div 2^3 + 1 =$ _____ [El Monofia - Menof 24]

    A. 4   **B.** 5   **C.** 6   **D.** 11

29. The value of the expression : $5n-2$ for $n=1$ is _____ [Cairo - Rod El Farag 24]

    A. 5   **B.** 3   **C.** -2 **D.** 1

30. What expression is equivalent to : $2x+10$? [Cairo - Rod El Farag 24]

    A. $2(x+5)$ **B.** $12x$ **C.** $20x$ **D.** $2x+5+2$

31. All the following expressions are equivalent except _____ [El Monofia - Tala 24]

    A. $4x+8$ **B.** $2(2x+4)$ **C.** $4(x+4)$ **D.** $4(x+2)$

2. Complete the following.

1. $5(3+4)$ is called _____ expression. [El Menia   Mallawi 24]

2. In the algebraic expression : $2n+7$, the coefficient is _____ [El Beheira 24]

3. The constant in the algebraic expression : $5x+3b+4$ is _____ [El Fayoum 24]

4. The like terms in the algebraic expression : $6x + 3x + 3$ are ———— [Aswan 24]

5. The age of Ahmed now is x years , then his age after 5 years is ————

[El Monofia   Tala 24]

6. 10 less a number is written as ———— [Cairo – El Nouzha 24]

7. The verbal form of : a^2 is ———— [Cairo - El Mostabal 24]

8. The verbal expression of : $2m - 7$ is ———— [El Fayoum 24]

9. The variable In the expression : $5a + 3$ is ———— [El Monofia El Sadat 24]

10. In 7^2 , the base is ———— and the exponent is ———— [Cairo – New 24]

11. $9 \times 9 \times 9 \times 9 = 9^{————}$ [Alexandria   Middle 24]

12. $3^3 = ————$ [Alexandria - El Gamarek 24]

13. $20 \div 4 + 3 \times 5 - 5 = ————$ [El Beheira - Kafr El Dawar 24]

14. $(3^2 + 4) \div 13 = ————$ [El Fayoum 24]

15. The value of the expression : $2x + 3$ for $x = 5$ is ———— [Cairo 24]

3. Answer the following questions.

1. Use the order of mathematical operations to simplify :

   A. $4 + 3^2 \times 2 \div (5 + 1)$ [El Monofia - El Bagour 24]

   B. $25 + 12 - 2^2 + (5^2 - 20)$ [Alexandr a - Borg El Arab 24]

2. Write the algebraic expression : the sum of 2 times x and 5 [Cairo   El Sahel 24]

3. Evaluate the expression :

   A. $6 + (8x - 3)$ when $x = 1$ [Aswan 24]

   B. $5x^2 + 8 \div (6 - 4) \div 2$ at $x = 3$ [Kafr El Sheikh - Bayala 24]

4. Check the following expressions are equivalent or not ?

   $2 + 8x$ and $3 + 2(x + 4)$

General Revision

1. Choose the correct answer.

1. "$2s + 1 = 5$" represents _____ [El Beheira – Kafr El Dawar 24]
   - **A.** a numeric expression.
   - **B.** an algebraic expression.
   - **C.** an equation.
   - **D.** an inequality.

2. If $y + 4 = 15$, then $y =$ _____ [Alexandria – El Gamarek 24]
   - **A.** 18
   - **B.** 12
   - **C.** 11
   - **D.** 10

3. If $x - 3 = 5$, then $x =$ _____ [Cairo 24]
   - **A.** 2
   - **B.** 3
   - **C.** 5
   - **D.** 8

4. If $3a = 12$, then $a =$ _____ [Assiut 24]
   - **A.** 12
   - **B.** 9
   - **C.** 36
   - **D.** 4

5. If $\frac{x}{2} = 3$, then $x =$ _____ [Giza 24]
   - **A.** 2
   - **B.** 3
   - **C.** 6
   - **D.** 1.5

6. If $x + 3 = 5$, then $3x =$ _____ [Assiut 24]
   - **A.** 5
   - **B.** 8
   - **C.** 6
   - **D.** 1

7. If $80 - m = 15$, then $m =$ _____ [Cairo 24]
   - **A.** 10
   - **B.** 65
   - **C.** 95
   - **D.** 56

8. If $x + x = 12$, then $x =$ _____ [E. Menia – Matay 24]
   - **A.** 1
   - **B.** 2
   - **C.** 6
   - **D.** 24

9. Which of the following is an inequality ? [El Monofia – El Sadat 24]
   - **A.** $x + 2$
   - **B.** $x - 4 = y$
   - **C.** $x < 7$
   - **D.** $(20 \div 5)^2$

10. The inequality that represented by the opposite number line is _____ [Giza – Abo El Nomrous 24]
    - **A.** $x > 3$
    - **B.** $x \geq 3$
    - **C.** $x < 3$
    - **D.** $x \leq 3$

11. The inequality which represents the numbers greater than 3 is _____ [Cairo – El Salam 24]
    - **A.** $x > 3$
    - **B.** $x < 3$
    - **C.** $x \geq 3$
    - **D.** $x \leq 3$

12. The inequality representing negative numbers is _____ [Alexandria – Middle 24]
    - **A.** $x > 0$
    - **B.** $x < 0$
    - **C.** $x \leq 0$
    - **D.** $x \geq 0$

13. Number of solutions of inequality : $x > -4$ in integers is _____ [Cairo – El Mostabal 24]
    - **A.** 4
    - **B.** -4
    - **C.** 0
    - **D.** infinite.

14. _____ is one of solutions of $x < -1$ [El Monofia – Menof 24]
    - **A.** 0
    - **B.** 1
    - **C.** -2
    - **D.** 3

45

15. The number _____ is one of solutions of the inequality : $x \leq 4$ [El Fayoum 24]

    A. 10   B. -1 C. 12   D. 5

16. All the following are solutions of the inequality : $x < -1$ except_____   [El Kalyoubia 24]

    A. -5 B. -4 C. -3 D. -1

2. Complete the following.

1. If $k + 1 = 5$, then $k - 3 = $ _____ .   [Assiut 24]

2. If $m - 2 = 7$, then $m + 1 = $ _____   [Cairo 24]

3. If $7x = 0$, then $21x = $ _____   [Cairo - El Mostabal 24]

4. The equation that represents

    the opposite figure is _____

    [El Beheira 24]

5. If $\frac{2}{5}x = \frac{2}{5}$, then $x = $ _____   [El Kalyoubia 24]

6. The value of x in the equation : $\frac{1}{2}x = 4$ is _____   [Cairo - El Salam 24]

7. If $|-9| = x$, then $x = $ _____   [Port Said - Port Fouad 24]

8. If $6y = 18$, then $\frac{1}{3}y = $ _____   [Cairo - Rod El Farag 24]

9. The smallest solution of the inequality : $x \geq -5$ is _____   [Alexandria El Montaza 24]

3. Answer the following questions.

1. Solve each of the following equations :

    A. $9 + y = 16$ [Cairo 24]

    B. $x - 3 = 12$ [El Kalyoubia 24]

    C. $y - 0.2 = 0.8$ [El Monofia - Shebin El Kom 24]

    D. $5t = 20$ [Giza - Awseem 24]

    E. $x + 17 = 29$ [Ismailia 24]

2. Find 4 possible soultions for the inequality :

    $x \geq -2$ in the integer numbers.   [Cairo 24]

3. Represent the following inequality on the number line : $x \geq 2$ [Giza - Abo El Nomrous 24]

General Revision on UNIT 5
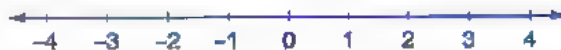
1. Choose the correct answer.

1. In $y = 2x + 1$, the dependent variable is _____ [Qena 24]

   A. 2   B. 1   C. x   D. y

2. In the equation : $5x + 3 = y$, the dependent variable is _____ [Cairo 24]

   A. x   B. y   C. 5   D. 3

3. The independent variable in the equation : $x = 3y - 2$ is _____ [Alexandria - El Montaza 24]

   A. x   B. y   C. 3   D. 2

4. In the equation : $m = 5n + 3$, the independent variable s _____ [Ismailia 24]

   A. m   B. 3   C. n   D. 4

5. The independent variable in the equation : $y = 4x$ is _____ [El Menia - Mallawi 24]

   A. y   B. x   C. 4   D. 4x

6. If the production F depends on the number of working hours W , then the independent variable is _____ [Kafr El Sheikh 24]

   A. F   B. W   C. F + W   D. F − W

7. The relationship that represents the equation : $y = \frac{1}{5}x$ is _____ [El Menia - Matay 24]

   A. divide by 5   B. multiply by 5   C. add 5   D. subtract 5

8. "y equals the product of x and 3" represents _____ [Cairo - E. Nouzha 24]

   A. $x = 3y$ B. $y = 3x$ C. $y = 3$ D. $y = x$

9. "y is four times x added to five" represents _____ [Beni Suef - Samesta 24]

   A. $x = 4y + 5$ B. $y = 4x + 5$ C. $x = 5y + 4$ D. $y = 5x + 4$

10. "Double of x added to 3 equals 13" as an equation is _____ [Cairo 24]

    A. $2x - 3 = 13$ B. $2x + 3 = 13$ C. $x - 3 = 13$ D. $x + 3 = 13$

11. In the equation : $y = 6x - 2$, the variable y represents the _____ number. [Cairo 24]

    A. input   B. output   C. independent   D. otherwise

12. If $t = 5r$, then t is called _____ variable. [El Beheira - Kafr El Dawar 24]

    A. dependent   B. independent   C. constant   D. otherwise

13. If $y = 3x$ and $x = 5$, then $y = $ _____ [Cairo - El Maadi 24]

    A. 3   B. 5   C. 8   D. 15

14. In the equation : $y = 2x + 4$, if $x = 5$, then $y = $ _____ [El Menia - Matay 24]

    A. 10   B. 14   C. 25   D. 29

15. In the equation : $y = x + 1$, if the output is 1, then the input is _____ [Ismailia 24]

    A. 0   B. 1   C. 2   D. 11

16. $(2, \underline{\hspace{1.5cm}})$ satisfies the rule : $y = x + 1$ [Ismailia 24]

   A. 1   **B.** 2   **C.** 3   **D.** 5

17. The ordered pair $(5, \underline{\hspace{1.5cm}})$ satisfies the equation : $y = 2x + 3$

   A. 16   **B.** 13   **C.** 10   **D.** 28

18. If $y = 7 + x$, then $(\underline{\hspace{1.5cm}}, 10)$ satisfies the equation.   [Cairo - New 24]

   A. 1   **B.** 3   **C.** 2   **D.** 4

---

2. Complete the following.

1. The dependent variable in the equation : $y = 3x$ is $\underline{\hspace{2cm}}$ [Cairo - El Zaitoun 24]

2. The dependent variable in the algebraic equation : $3m + 1 = n$ is

                  [El Monofia – Menof 24]

3. The dependent variable in the equation : $a = b + 2$ is $\underline{\hspace{1.5cm}}$ [Ismailia 24]

4. In the equation : $y = x + 1$, the independent variable is $\underline{\hspace{1.5cm}}$ [Port Said 24]

5. The independent variable in the equation : $x = 3y$ is $\underline{\hspace{1.5cm}}$ [El Monofia - Shebin El Kom 24]

6. In the equation : $l = 4m - 3$, the independent variable is $\underline{\hspace{1.5cm}}$ (Giza – Awseem 24)

7. The verbal phrase for the equation : $y = 5l$ is $\underline{\hspace{1.5cm}}$ (Giza 24)

8. The verbal phrase for : $h + 12 = 19$ is $\underline{\hspace{1.5cm}}$ [El Menia – Matay 24]

9. "3 increased by t equals s" in equation is $\underline{\hspace{1.5cm}}$ [Assut 24]

10. If $y = 8x$ and $x = 3$, then $y = \underline{\hspace{1.5cm}}$ [El Monofia – El Shohada 24]

11. If $y = x - 2$ and $x = 7$, then $y = \underline{\hspace{1.5cm}}$ [El Monofia – El Sadaat 24]

12. In the equation : $y = 3x + 1$, if $x = 4$, then y would be $\underline{\hspace{1.5cm}}$ (Kafr El Sheikh – Bayala 24)

13. In the equation : $y = \frac{1}{2}x + 3$, if $x = 6$, then y would be $\underline{\hspace{1.5cm}}$

                 (El Monofia – Sers El Layan 24)

14. The ordered pair which satisfies the rule : $y = x + 2$ is $(3, \underline{\hspace{1.5cm}})$

                 [Beni Suef – Samesta 24]

15. $(8, \underline{\hspace{1.5cm}})$ satisfies the equation : $y = \frac{1}{8}x + 3$ [El Menia – Mallawi 24]

16. The equation from the table is $\underline{\hspace{1.5cm}}$ (Cairo – El Nouzha 24)

x	0	4	8	12
y	4	8	12	16

3. **Answer the following questions.**

   1. If $y = 2x + 7$, find the value of y for $x = 4$ [Luxor 24]

   2. If $y = 2x + 1$, find the value of y for $x = 5$ [Souhag 24]

   3. Write an equation. Use the variables x and y, where x is the independent. Using the rule "Add 3", then substitute $x = \frac{1}{2}$ to evaluate y.   [El Kalyoubia 24]

   4. Write an equation use the variables x and y, where x is the independent, write the equation "multiply by 8 and add 3", substitute $x = \frac{1}{4}$ to evaluate y.   [Giza - Awseem 24]

   5. The price of a piece of sweets is 5 pounds, the number of pieces is x and the total cost is y. Write the equation which represents the relation between x and y. [Kafr El Sheikh 24]

   6. Complete the following table according to the equation : $y = 3x + 2$ [Giza 24]

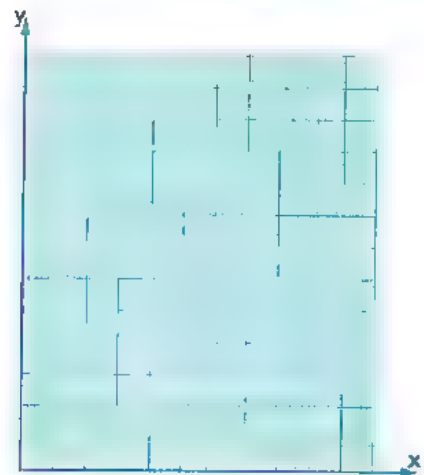| X	0	2	4	6
y	___		___	___

   7. Complete the following table, then represent it graphically :

     The equation : $y = x + 1$ [Port Said - East 24]

x	0	1	2
y	___	___	___
(x,y)	(0, ___)	(1, ___)	(2, ___)

1. Choose the correct answer.

1. Which of the following is a statistical question ?   [Cairo – El Sahel 24]

    A. How old are you ?

    B. Do you like the color red ?

    C. What are the students favorite color in your class ?

    D. What is the name of your school ?

2. The ——————— is a numerical data.   [Cairo – New 24]

    A. nationality   B. place of birth   C. exam degree   D. name

3. The ——————— is one of the numerical data.   [Kafr El Sheikh 24]

    A. name   B. nationality   C. weight   D. favourite color

4. The ——————— is a categorical data.   [El Menia – Mallawi 24]

    A. age   B. length   C. weight   D. favourite color

5. The following data are numerical except the ———   [El Monofia   El Sadat 24]

    A. height.   B. weight.   C. age.   D. birth place.

6. The following data are descriptive data except the ————   [El Monofia   Sers El Layan 24]

    A. name.   B. age.   C. birth place.   D. blood species.

7. The best graph to represent the number of pupils whose height range from 150 – 160

    is the ————   [El Menia – Matay 24]

    A. dot plot.   B. bar graph.   C. histogram.   D. box plot

8. The ——————— data is written in form of words.   [Assiut 24]

    A. numerical   B. categorical   C. mean   D. histogram

9. Which display makes it easier to see the median ?   [El Beheira 24]

    A. Histogram   B. Box plot   C. Dot plot   D. Bar graph

10. The ——————— is the middle value of the data set after arranging it.   [El Beheira 24]

    A. mean   B. median   C. mode   D. range

11. The median of the values : 9 , 4 , 8 , 1 and 3 is ————   [El Fayoum – West 24]

    A. 4   B. 1   C. 2   D. 3

12. The median for the set of data : 60 , 66 , 62 , 64 , 61 , 63 and 65 is ————

                                                                        [Cairo – El Mostabal 24]

    A. 62   B. 65   C. 61   D. 63

13. The median for the set of values : 109 , 90 , 114 , 120 , 97 , 104 , 93 , 98 , 127 and 94 is ————

                                                                        [El Menia – Matay 24]

    A. 98   B. 101   C. 104   D. 107

14. The shape that shows the lower quartile is the —————— [Cairo 24]

    A. histogram.   **B.** box plot.   **C.** dot plot.   **D.** other.

15. The graph which is easier to represent 5 number summery is the ——————

    [Port Said - East 24]

    A. box plot.   **B.** dot plot.   **C.** histogram.   **D.** bar graph.

16. The lower quartile for the set of data : 72 , 64 , 77 , 61 , 79 , 63 , 76 , 75 and 60 is ——————

    [Kafr El Sheikh – Bayala 24]

    A. 61   **B.** 62   **C.** 70   **D.** 76

17. The upper quartile for the set of data : 100 , 101 , 103 , 97 , 98 , 99 and 102 is ——————

    [Kafr El Sheikh – Bayala 24]

    A. 103   **B.** 102   **C.** 98   **D.** 100

18. In the opposite box plot :

    , the upper quartile is —————— [Port Said 24]

    A. 30   **B.** 35   **C.** 50   **D.** 55
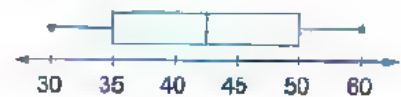
19. From the opposite box plot :

    The median is —————— [Cairo 24]

    A. 2   **B.** 4   **C.** 8   **D.** 10
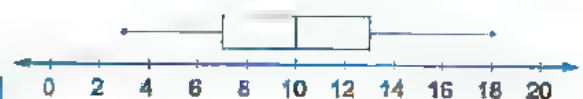
2. Complete the following.

1. The types of statistical questions are —————— and —————— [E. Kalyoubia 24]

2. The —————— shows the set of data in form of intervals. [El Beheira — Kafr El Dawar 24]

3. The median of the values : 3 , 7 , 8 , 5 and 4 is —————— [Port Said - East 24]

4. If the median of the values : $k+1$, $k+2$, $k+3$, $k+4$ and $k+5$ is 13 , then $k =$ ——————

    [Giza – October Garden 24]

5. If the opposite minimum value of the following data set : [Aswan 24]

    15 , 21 , 27 , 20 and 22 is ——————

6. If the opposite box plot shows the data for the average weights of some students, then the upper quartile = —————— [Giza 24]
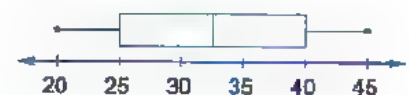
7. From the following box plot :

    The first quartile is ——————

    [Cairo 24]

3. Answer the following.

1. The following table shows the recorded temperatures in 40 cities in one day. Draw the histogram of the following table.

Interval temperature	Frequency of number of cities
20 – 21	8
22 – 23	12
24 – 25	9
26 – 27	7
28 – 29	4

(El Monofia - Sers El Layan 24)

20 21 22 23 24 25 26-27 28-29
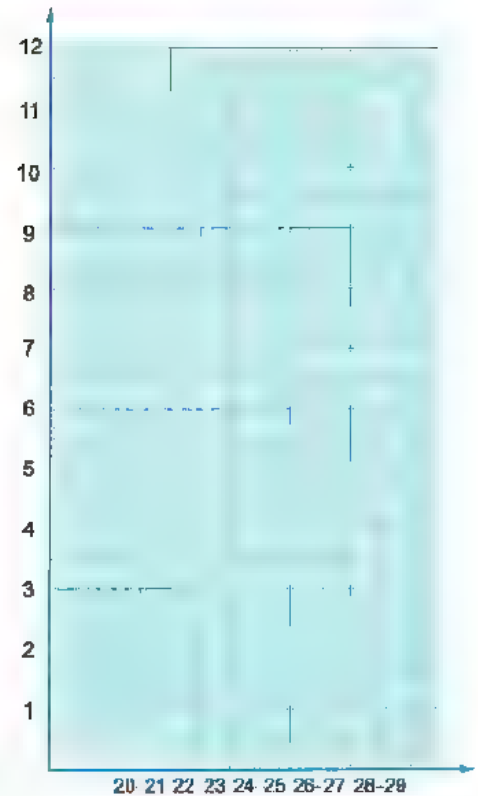
2. From the opposite histogram answer each of the following :

A. The number of people were surveyed is _____

B. The frequency in age interval 10 – 19 is _____

C. How many people are 30 years or older ?

_____

D. How many people are younger than 20 years ?

_____
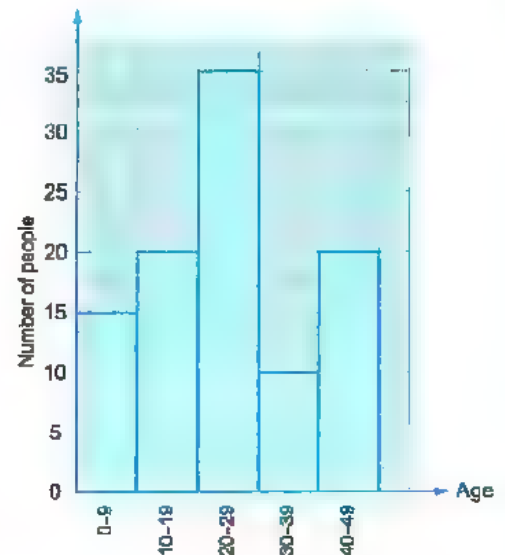
(Beni Suef - Samesta 24)

3. Using the opposite histogram

A. Complete the table.

ठ. Complete the graph.

Intervals	Frequency
0 - 19	3
20 - 39	
40 - 59	7
60 - 79	
80 - 99	8

[Cairo - F(Sa e. 24]
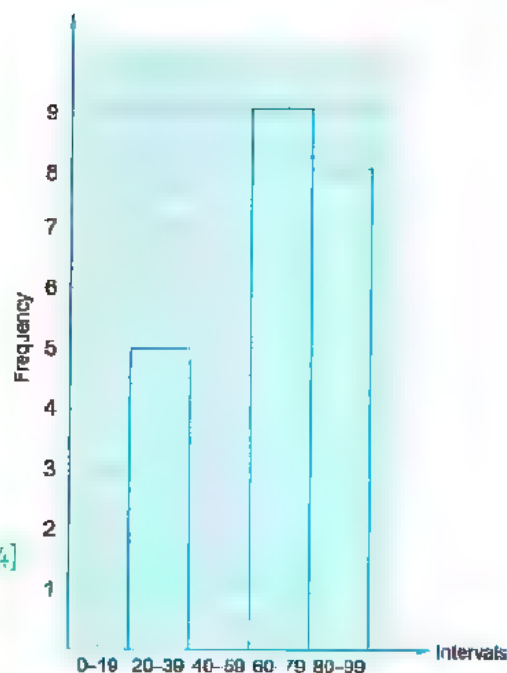
4. From the opposite box plot :

A. The median = ———

B. The first quartile = ———

C. The third quartile = ———

D. The range = ———

[E. Monofia - El Sadat 24]

5. From the opposite box plot :

A. The minimum value = ———

B. The maximum value = ———

C. Lower quartile Q1 = ———

D. Upper quartile Q3 = ———

[Port Said - North 24]

6. Draw the box plot for the following data :

5 , 7 , 2 , 1 , 2 , 10 , 3 , then complete the following.

[El Beheira 24]

A. Min. = ———

B. Max. = ———

C. Median = ———

D. Q1 = ———

E. Q3 = ———

General Revision

1. Choose the correct answer.

1. The mean = sum of the values ———— the number of values. [Port Said 24]

   A. +   B. —   C. x   D. ÷

2. The mean of the values : 6 and 4 is ———— [Alexandria - El Gamarek 24]

   A. 3   B. 4   C. 6   D. 5

3. The mean of the values : 3 , 5 and 4 is ———— [El Beheira 24]

   A. 12   B. 5   C. 4   D. 3

4. The arithmatic mean of the values : 4 , 5 , 8 and 3 is———— [Cairo   El Salam 24]

   A. 20   B. 4   C. 5   D. 6

5. The mean of the values : 3 , 5 , 4 , 7 and 6 is ———— [E. Menia - Deir Mawas 24]

   A. 7   B. 3   C. 5   D. 8

6. The mean of the numbers : 5 , 8 , 10 , 8 and 4 is ———— [Cairo 24]

   A. 35   B. 7   C. 8   D. 10

7. The mean of the values : 0 , 6 , 2 , 8 , 3 and 5 is ———— [Kafr El Sheikh 24]

   A. 4   B. 5   C. 6   D. 24

8. The mean of the following set of data : 4 , 5 , 7 , 7 , 8 , 9 and 9 is ———— [Cairo 24]

   A. 6   B. 7   C. 8   D. 9

9. If the mean of 8 , 6 , x and 5 is 5 , then x = ———— [El Fayoum - West 24]

   A. 0   B. 1   C. 6   D. 3

10. If the mean of 3 , 7 , 4 , 6 and x is 5 , then x = ———— [Kafr El Sheikh 24]

    A. 2   B. 3   C. 5   D. 9

11. The mean of the following values ☐ ☐ is ———— [Giza – Awseem 24]

    A. 2   B. 3

    C. 4   D. 5

12. The balanced point of the set of data which represents
    the opposite dot plot is ————

    [Alexandria - El Gamarek 24]

    A. 5   B. 3   C. 4   D. 2

13. From the opposite graph :
    The balance point is ————

    [El Beheira 24]

    A. 6   B. 5   C. 4   D. 2

14. The balanced point of the set of data which represents the opposite dot pot is —————

[Cairo – El Sahel 24]

   A. 12   B. 13   C. 14   D. 15

15. The balance of the following data set 17 , 18 , 20 , 20 , 20 , 21 , 21 , 21 and 22 is —————

[Cairo – El Nouzha 24]

   A. 21   B. 17   C. 20   D. 22

16. The mode of the values : 9 , 0 , 1 , 7 , 0 , 4 and 0 is —————   [Aswan 24]

   A. 0   B. 1   C. 7   D. 9

17. The mode of the values : 5 , 3 , 2 , 5 , 8 and 5 is   [El Men a – Maghagha 24]

   A. 8   B. 2   C. 3   D. 5

18. The mode of the set of data : 72 , 64 , 72 , 61 , 79 , 64 , 76 , 72 and 58 is ————— [Qena 24]

   A. 61   B. 60   C. 72   D. 79

19. If the mode of the numbers : 3 , $x - 1$, 7 and 9 is 7 , then $x =$ ————— [Cairo – El Mostabal 24]

   A. 7   B. 8   C. 9   D. 6

20. The outlier of the data set : 11 , 17 , 2 , 13 and 19 is   [Beni Suef – Samesta 24]

   A. 2   B. 13   C. 11   D. 7

21. The outlier of the following values : 1 , 4 , 52 , 3 and 7 is ————— [Souhag 24]

   A. 52   B. 1   C. 3   D. 7

22. In the opposite dot plot , the outlier is —————
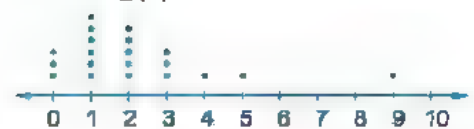
[Cairo – New 24]

   A. 0   B. 1   C. 2   D. 9

23. Which is best to measure central tendency of the opposite data set ?

[Giza Bolak 24]

   A. Mean   B. Median   C. Either   D. Lower quartial

24. The better measure of central tendency of the opposite dot plot is the —————

[El Menia 24]

   A. mean.   B. median.   C. either.

25. Which is best to measure the central tendency if outlier value is available ?

[Cairo – El Zaitoun 24]

   A. Range   B. Median   C. Mean   D. Other

26. _____ = the largest value - the least value. [Cairo - El Maddi 24]

    A. The range   **B.** The median   **C.** The mode   **D.** The mean

27. The range of the values : 5 , 9 , 10 , 7 and 4 is _____ [El Kalyoubia 24]

    A. 5   **B.** 6   **C.** 7   **D.** 10

28. From the opposite box plot :

    The range = _____

[El Monofia – Sers El Layan 24]

    A. 5   **B.** 6   **C.** 4   **D.** 2

---

2. Complete the following.

  1. From the opposite dot plot :

    The balance point is _____

[Assiut 24]

  2. The balance point of

    the opposite data is _____

[El Fayoum 24]

  3. The mean of the values which represents

    the opposite dot plot is _____

[Cairo - El Nouzha 24]

  4. From the opposite dot plot :

    The mean equals _____
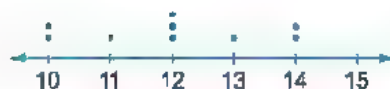
[Kafr El Sheikh - Bayala 24]

  5. From the opposite dot plot :

    The median is _____

[Giza – Awseem 24]

  6. The mean of the values : 6 , 7 , 12 and 15 is _____ [Alexnadria – Middle 24]

  7. The mean of the values : 5 , 4 , 1 , 2 and 3 is _____ [El Monofia – El Sadat 24]

  8. The mode of the values : 7 , 9 , 7 , 8 , 7 , 6 , 7 and 10 is _____ [Port Said – North 24]

  9. The mode of the values : 3 , 7 , 5 , 4 , 7 , 1 and 7 is _____ [El Monofia – El Bagour 24]

  10. The values that lie outside most of the other values in a set of data is called _____

[El Monofia - Menof 24]

  11. The outlier value of the following data set is _____ [Assut 24]

    22 , 94 , 26 , 24 , 25 , 27 , 21

  12. The outlier value of the following data : 91 , 94 , 93 , 4 , 90 , 99 is _____

[Alexandria - Middle 24]

13. The range − the greatest value − _____ [A.exandria – El Montaza 24]

14. The range of the numbers : 3 , 6 , 7 , 9 and 5 is _____ [Cairo – El Sanel 24]

15. In the opposite box plot ,   [E. Beheira 24]

    The range = _____

1 2 3 4 5 6 7 8

3. Answer the following.

1. From the following dot plot answer the following questions   [Giza – 24]

   A. How many people saw 3 movies ?

   _____

   _____

   B. How many people saw 2 movies or more ?

   _____

   _____

Movies seen last month

0 1 2 3 4 5 6 7 8 9 10

Number of movies
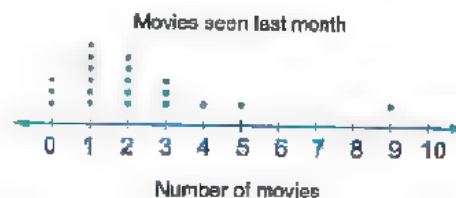
2. The opposite box plot shows the data of some student.
   Complete.   [Kafr El Sheikh 24]

   A. The median is _____

   B. The range is _____

0 1 2 3 4 5 6 7

3. Using the values : 40 , 5 , 39 , 50 and 51   [Kafr El Sheikh 24]

   A. The outlier is _____

   B. The mean is _____

4. Using the following set of data : 2 , 9 , 6 , 9 , 4 , 9 and 8 to find :   [Cairo 24]

   A. The range _____

   B. The mode _____

المراجعة رقم (3)

الترم الاول

First term Questions Bank
المتميز

Question 01 — Choose the correct answer

1 Take away double the number m from 20 is written as ....
- (a) $20 - m$
- (b) $m - 20$
- (c) $2m - 20$
- (d) $20 - 2m$

2 The volume of the cube of edge length 4 cm is ....cm^3
- (a) 12×4
- (b) $4 + 4 + 4$
- (c) 4^3
- (d) 3^4

3 $3 \times 3 \times 3 \times 3 \times 3 = $ ....
- (a) 3×5
- (b) $3 + 3 + 3 + 3 + 3$
- (c) 3^5
- (d) 5^3

4 $3 + 3 + 3 + 3 + 3 = $ ....
- (a) 3×5
- (b) $3 \times 3 \times 3 \times 3 \times 3$
- (c) 3^5
- (d) 5^3

5 The value of the expression $5 m \div 3$ for $m = 6$ is ....
- (a) 3
- (b) 5
- (c) 6
- (d) 10

6 The first operation you preform in the expression $6 + (5^3 - 4) \div 2$ is ....
- (a) add
- (b) Subtract
- (c) exponent
- (d) Divide

7 The first operation you preform in the expression $6 + 5^3 - (4 \div 2)$ is ....
- (a) add
- (b) Subtract
- (c) exponent
- (d) Divide

9 Seven cubed added to six squared equals ....
- (a) $7 \times 3 + 6 \times 2$
- (b) $6^2 + 7^3$
- (c) $6^2 - 7^3$
- (d) $2^6 + 3^7$

10 Rozana saved x pounds . Mr Mahmoud Elkholy gave her 20 pounds , then she have ....pounds now .
- (a) $X - 20$
- (b) 45
- (c) $X + 20$
- (d) $20 x$

11 If $x + 5 = 8$, then $3x = $ ....
- (a) 3
- (b) 5
- (c) 9
- (d) 15

12 A number if added to 5 the result is 17 , then the number is ....
- (a) 12
- (b) 22
- (c) 5
- (d) 17

13 ....is a solution of the inequality $d > 15$
- (a) 15
- (b) 12
- (c) 20
- (d) All of them

(14) ....is a solution of the inequality d ≥ 15

(a) 15   (b) 16   (c) 20   (d) All of them

(15) The mode of 7, 9 , 7, 8 , 7, 6, 7 and 10 is..........

(a) 7   (b) 8   (c) 9   (d) 10

(16) All the dot plots have the following characteristics except ....

(a) dot plot should have titles

(b) dot plots should have data graphed above a number line

(c) the number lines in dot plots should start at 0

(d) each individual piece of data can be seen on a dot plot and is represented by a dot.

(17) A .... has two axes, horizontal and vertical.

(a) bar graph   (b) histogram   (c) double bar graph   (d) all of them

(18) The question : what are the students favourite colours? Is a........... question

(a) statistical   (b) non-statistical   (c) numerical data   (d) All of them

(19) The range = the greatest value.......... the smallest values.

(a) +   (b) –   (c) ÷   (d) ×

(20) The best subset for the number 5 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) natural numbers

(21) The best subset for the number 5.2 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) natural numbers

(22) The Set of counting numbers .... The set of rational numbers

(a) Belong   (b) not belong   (c) subset   (d) Not subset

(23) The Set of integers .... The set of natural numbers

(a) Belong   (b) not belong   (c) subset   (d) Not subset

(24) –5 .... The set of rational numbers

(a) Belong   (b) not belong   (c) subset   (d) Not subset

(25) r is 9 times p added to twice m in the equation is........

(a) $r = 9 p + m$ (b) $r = 2m + 9p$ (c) $9 r = p + 2m$ (d) $r + m = 9p$

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يمكنكم الحصول على المذكرات والاختبارات من خلال صفحة رمز الـ QR Code أو من خلال صفحة "المتميز - أ/ محمود سعيد".
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(26) In the equation : y = x + 1, if the output is 1, then the input is....

(a) 1   (b) 3   (c) 2   (d) 0

(27) The order pair which satisfies the rule : y = 3x + 1 is.....

(a) (0, 0)   (b) (0, 4)   (c) (–1, 1)   (d) (1, 4)

(28) which of the following date set hasn't any outlier?

(a) 103,104,105,103,102,17   (b) 24,25,26,21,22,23,204

(c) 300, 309,302,303,305,306,308   (d) 4,211,212,213,214,215,1000

(29) Youssef eat at least 3 oranges , then Youssef may eat ....oranges

(a) 3   (b) 5   (c) 12   (d) All of them

(30) Layan has 25 pounds and Maya has more money than Layan , then Maya may has ....pounds .

(a) 25   (b) 20   (c) 100   (d) All of them

(31) Zyad has 16 candies and Kareem has less candies than Zyad , then Kareem may has ....candies .

(a) 100   (b) 16   (c) 10   (d) All of them

(32) Jana bought 6 SPIRO SPATHIS and Mohamed bought same number or more ,then Mohamed may bought .... SPIRO SPATHIS .

(a) 6   (b) 12   (c) 100   (d) All of them

(33) All of the following are solutions of inequality x ≤ –8 except ....

(a) –8   (b) –10   (c) –7   (d) All of them

(34) In the equation : 5x + 2 = y, the independent variable is ....

(a) 5   (b) 2   (c) x   (d) y

(35) In the equation : b = $\frac{1}{2}$ f + 3 ,the dependent variable is ....

(a) 5   (b) 2   (c) f   (d) b

(36) The GCF of any two different prime numbers is ....

(a) 0   (b) 1   (c) itself   (d) The smallest number

(37) $\frac{3}{6} + \frac{1}{2} -$ ....

(a) $\frac{1}{2}$ (b) $\frac{3}{6}$ (c) 1   (d) $\frac{4}{8}$

(38) Which of the following is an equation ?

(a) 3n + 7   (b) 7 times the number h   (c) 3 c = 3   (d) 6 e – 7

أ. محمود سعيد

(39) (2 , m) satisfies the rule y = 3x − 2 , then m = ...
- (a) 1
- (b) 2
- (c) 3
- (d) 4

(40) In the equation : y = 2x + 10 , the ordered pair (3 , n) satisfies the equation , then n = ...
- (a) 2
- (b) 10
- (c) 16
- (d) 30

(41) " Y is 6 times h added to 12 " in equation is ....
- (a) 12 = y + 6h
- (b) Y = 12 h + 6
- (c) H = 6y +12
- (d) Y = 6 h + 12

(42) (........ , ...) is called the origin .
- (a) (1 , 1)
- (b) (0 , 1)
- (c) (0 , 0)
- (d) (1 , 0)

(43) The greatest negative integer is ....
- (a) 1
- (b) −1
- (c) 0
- (d) −1000,000

(44) $\frac{3}{7} + \frac{2}{5}$ = ...
- (a) $\frac{5}{12}$
- (b) $\frac{29}{35}$
- (c) $\frac{1}{2}$
- (d) 1

(47) 3(5 + 4) = (3 x ....) + (........x 4)
- (a) 5 , 3
- (b) 5 , 4
- (c) 3 , 5
- (d) 3 , 4

(48) In the equation the : y = 2x + 3, the ordered pair (2, a) satisfies the equation then, a = ...
- (a) 5
- (b) 8
- (c) 7
- (d) 9

(49) The median of the value 4, 7, 8, 1 and 3 is ....
- (a) 3
- (b) 1
- (c) 4
- (d) 7

(50) The median of B + 1, B + 2, B + 3 is 10, then B − ....
- (a) 1
- (b) 3
- (c) 2
- (d) 8

(51) If the upper quartile of the values : m + 1, m + 2, m + 3, m + 4 , k + 5 , where m is a positive integer is 16.5, then m = ...
- (a) 7
- (b) 8
- (c) 12
- (d) 10

(52) All the following are numerical data except..........
- (a) names
- (b) ages
- (c) length
- (d) temperatures

(53) The opposite of the number 15 is ....
- (a) 15
- (b) | 15 |
- (c) −15
- (d) | −15 |

(54) The additive inverse of | − 4 | is ....
- (a) 4
- (b) | 4 |
- (c) −4
- (d) | −4 |

55 In the equation : x = 5 y + 3, the dependent variable is.........

(a) 5y (b) x (c) y (d) 3

56 In the equation : 4 a + 24 = b , the independent variable is.........

(a) a (b) b (c) 24 (d) 4a

57 "k equals the product of m and 4" in equation is..........

(a) k = 4 m (b) k = 4 + m (c) m = 4 k (d) m = k + 4

58 which of the following is an equation?

(a) 20 x + 53.2 (b) 2 + m (c) Y > 12 (d) 5 x = 20

59 "30 less than f equals y" in the equation is........

(a) 30 – f = y (b) 30 + f = y (c) F – 30 = y (d) Y – 30 = f

60 If (4,.........) satisfies the rule y = $\frac{1}{2}$ x + 2

(a) 4 (b) 10 (c) 6 (d) 2

61 $\frac{9}{2}$ .... The set of natural numbers

(a) Belong (b) Does not belong (c) subset (d) Not subset

62 .... is categorical data.

(a) age (b) phone number (c) weight (d) favourite TV show

63 .... is numerical data

(a) nationality (b) Place of birth (c) Exam degree (d) name

64 The LCM of any two different prime numbers is ....

(a) 1 (b) The product of them (c) The smallest number (d) The greatest number

65 The dividend in 321 ÷ 12 = 26 R9 is ....

(a) 321 (b) 12 (c) 26 (d) 9

66 .... is the better measure of centre for data set with outlier values.

(a) Median (b) Range (c) Mode (d) mean

67 Which of the following is nearest to zero ?

(a) 5 (b) –1 (c) –3 (d) 3

68 The best subset for the number 0 is ....

(a) Counting numbers (b) Rational numbers (c) Integers (d) natural numbers

69 Which of the following is the greatest number ?

(a) –5.3   (b) –3.5   (c) 3.5   (d) 5.3

70 Which of the following is the smallest number ?

(a) –3.2   (b) –2.3   (c) –0.5   (d) –0.01

71 The best subset for the number –3 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) natural numbers

72 The range can not be found using.........

(a) dot plot   (b) histogram   (c) box plot   (d) all of them

73 If the mean of 8, 6, x, 5 is 5, then x = ...

(a) 1   (b) 2   (c) 3   (d) 4

74 The mean of the values "54, 32, 30 ,4"is.........

(a) 18   (b) 30   (c) 4   (d) 54

75 The LCM of 5 and 15 is ....

(a) 5   (b) 15   (c) 1   (d) 3

76 The GCF of 5 and 15 is ....

(a) 5   (b) 15   (c) 1   (d) 3

77 The common factor of all number is ....

(a) 0   (b) 1   (c) 2   (d) 100

78 If the cost of one ticket "h" and the total cost of 5 tickets "m" ,Then the independent variable is.........

(a) m   (b) h   (c) 5   (d) 5 h

79 If the cost of one ticket "h" , then total cost of 5 tickets is ....

(a) m   (b) h   (c) 5   (d) 5 h

80 The order pair which satisfies the equation : $y = x + 2$

(a) (0, 2)   (b) (1, 1)   (c) (2, 1)   (d) (1, 2)

81 Which of the following is numerical expression ?

(a) 3(6d + 5)   (b) 8 + 6   (c) 2n – 9   (d) 4 – h

82 Which of the following is algebraic expression ?

(a) 4(6 + 5)   (b) 4 – 1 + 2   (c) 20 ÷ 9   (d) 3h

83 The integer which comes just after –1 is ....

(a) 0   (b) 1   (c) –2   (d) –1

84 The integer that is one less than 0 is ....

(a) 0   (b) 1   (c) –2   (d) –1

85 All counting numbers are also ....

(a) natural numbers   (b) Rational numbers   (c) Integers   (d) All of them

86 $|-10| > $ ....

(a) $|-9.99|$ (b) $|-90|$ (c) $|-100|$ (d) $|-15|$

87 $5(8 + ...) \times 7$ is a numerical expression .

(a) d   (b) 4f   (c) 5   (d) $19 + n$

88 $5(8 + ...) \times 7$ is a algebraic expression .

(a) 5   (b) 5m   (c) $18 + 2$ (d) 13

89 Adding 5 to third a number = ...

(a) $5 + 3x$ (b) $3x + 5$ (c) $\frac{1}{3}x - 5$ (d) $\frac{1}{3}x + 5$

90 The distance between –6 and its opposite on the number line is ....

(a) 6   (b) –6   (c) 12   (d) –12

91 $|-15| = m$, then m = ...

(a) –15   (b) 15   (c) Both a,b   (d) neither

92 $|-x| = 5$, then x = ...

(a) –5   (b) 5   (c) Both a,b   (d) neither

93 The number of terms in the expression $6d + 2 - 5n \div 4$ is .... terms

(a) 1   (b) 2   (c) 3   (d) 4

94 The like terms in the expression $2f + 2 - 2k - 8$ is ....

(a) 2f , 2k   (b) 2 , 8   (c) 2 , 2k   (d) 2f , 2

95 The constant in the expression $6d + 2 - 5n$ is ....

(a) 6   (b) d   (c) 5n   (d) 2

96 The coefficient in the expression $6d + 2$ is ....

(a) 6   (b) d   (c) 6d   (d) 2

97 The balance (mean) of the following date set 1 , 2 , 3 , 4 , 4 , 6 , 8 is.....

(a) 2   (b) 6   (c) 4   (d) 8

98 ....is another name for the mean .

(a) Median   (b) Range   (c) Mode   (d) Average

Question 02 — Complete

(1) 6 cubed = ...

(2) 5 squared = ...

(3) $5^2 + 6 - 2^3$ = ...

(4) If the number of chicken owned is "t" and the number of eggs collected daily is "h" , then the independent variable is ....

(5) The lower quartile for the set of data : 5, 7, 9 ,10 ,12 ,15 , 20 is.....................

(6) The graph shows gaps and cluster 's ....

(7) The graph shows distribution and spread is ....

(8) The upper quartile of the values " 7, 1, 6 , 2 , 3 ,1 , 9 " is............................

(9) The median of the values "2, 7, 10 , 0 , 2 , 5 , 6 , 6 , 12 , 1" is.....................

(10) If the upper quartile of the values : x + 14, x + 10, x +12, x + 15, x +16, x + 11 , x + 14 , x + 17 where x is a positive integer is 18.5, then x =...........................

(11) 5x = 20 , then $\frac{1}{2}$ x = ...

(12) 100 x = 0 , then 12 x = ...

(13) 100 x = 100 , then 12 x = ...

(14) $\frac{x}{5}$ = 6 , then x = ...

(15) 3 n = 15 , then n = ...

(16) X + 5.4 = 7.8 , then x = ...

(17) 7 x = 28 , then $\frac{1}{2}$ x = ...

(18) " F equals the product of m and 6 " as an equation is ....

(19) The inequality that represent the negative integers is ....

(20) we use...........................to see exactly how many times each individual values occurs.

(21) The inequality that represent the positive integers is ....

(22) The smallest natural number is ....

(23) The inequality that represent the non-negative integers is ....

(24) The inequality that represent the non-positive integers is ....

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(25) The graph shows the 5-number summary is ....

(26) The graph shows the set of data in form of intervals is ....

(27) " Twice x added to 7 equals y " as an algebraic equation is ....

(28) " m = 5d – 5 " as an verbal is ....

(29) In the equation : $d = \frac{5}{9}n - 8$ the dependent variable is ....

(30) The verbal phrase for k + 10 = 12 is ....

(31) " 20 more than v equals m " in equation is ....

(32) The rule is " multiply by 8 ". if $x = \frac{1}{4}$,then y would be ....

(33) 4 more than s equals t in equation is ....

(34) The word phrase for the equation " h = 8 g " is ....

(35) The ordered pair which satisfies the rule: $y = x + 5$ is (1, ...)

(36) In the rule : $y = 4x$, if $x = 1.5$ then $y =$ ....

(37) The verbal phrase for : 2 m + 4 = 8 is ....

(38) $5 - 3\frac{2}{5} =$ ....

(39) " z equals the sum of adding 12 to the product of 4 and y" the equation is ....

(40) The dependent variable in the equation $a = 4b + \frac{1}{2}$ is ....

(41) .... = maximum value – minimum value

(42) The maximum values for the set of values " 4,7,9,1,6" is ....

(43) The favourite colours of a number of pupils are .... data.

(44) If the mean of 5 values is 15, then the sum of these values is ....

(45) If the marks of 6 pupils in one of the tests are 29, 33,57,40,36 and 49, then the range for these marks is equal to ....

(46) The number of integers between –5 and –1 are ....

(47) The smallest counting number is ....

(48) The value of the expression $2x^2 - (2 \times 3 + 3^2)$ for x = 3 is ....

(49) If the price of one pen is 6 pounds , then the price of x pens is ....

(50) If the price of 10 pens is x pounds , then the price of one pen is ....

(51) In 5^4 the base is .... and the exponent is ....

52) The base is 8 and the exponent is 3 , then the exponential form of this is ....

53) In a square the side length is x then the perimeter is .... and the area is ....

54) .... are the values that lie away the other values.

55) ....is the middle values of the data set.

56) The additive inverse of -6 is ....

57) The additive inverse of 0 is ....

58) The LCM of 5 and 7 is ....

59) ....is the value that occurs most often .

60) If 50 is the greatest number of data set and the range = 10 ,then
The smallest number of this data set equals........................

61) The number -2.5 in the form $\frac{a}{b}$ is ....

62) The opposite of the number 50 is ....

63) The integer which comes just before -9 is ....

64) The GCF of 5 and 7 is ....

65) The outlier of the following date set 91, 94, 93, 3, 90, 99 is........................

66) The mode of the following set "3,4, 5,3,5,7,5,9,5,3" is........................

67) The range of the set of values 6, 5, 9,4,11,3, 7 is........................

68) If the range of a set of values is 12 and the smallest value is 8, then
the largest values is........................

69) If the sum of a group of values is 18 and the mean of these values is 3, then the number of
these values is........................

70) The smallest positive integer is ....

71) The smallest non-negative integer is ....

72) The greatest non-positive integer is ....

73) type of data is .... or ....

74) What is your favourite school subject? is........................ question.

75) The GCF of 8 and 9 is ....

76) The LCM of 8 and 9 is ....

77) 864 ÷ 24 = ...

(78) ....is a multiple of all numbers .

(79) ....is a factor of all numbers .

(80) The number of terms in the expression $6h + 2d - 3x$ is ....terms

(81) The constant in the expression $5f + 2b + 3$ is ....

(82) $|-5| + 3 = $ ....

(83) The graph shows spread of the data in each quarter is.......................

(84) .... data is written in the form of numbers.

(85) The types of pens preferred by your class's students is a ....date.

(86) The median of the following date set "4, 5,7,7,8,9,9" is...............................

(87) $|-18| \times 0 = $ ....

(88) The algebraic expression of a number less than 5 is ....

(89) The algebraic expression of a number less 5 is ....

(90) The coefficient in the expression $-5d + 3$ is ....

(91) The product of 5 and a number t is ....

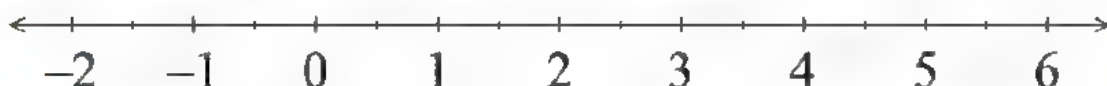(92) Twice the difference between a number and 6 is ....

Question 03   Answer the following questions

(1) Simplify the following :

1) $6^2 + 2(24 - 9) \div 3$ 2) $8 - 4 \times 6 \div (5 - 3)^3$

....

(2) **Mohamed has x pounds . he bought a book for 60 pounds . write the algebraic expression of how much money with him now .**

....

(3) **Represent $-2\frac{2}{5}$ on the number line .**
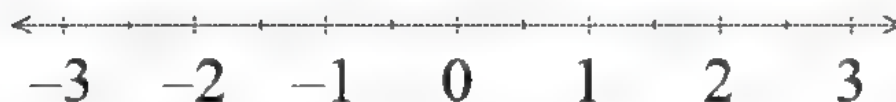
$$\longleftarrow \quad -3 \quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad \longrightarrow$$

(4) Represent $5 \geq x$ on the number line in the set of integers .

$$\longleftarrow \quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad \longrightarrow$$

⑤ Write an equation. Use the variables x and y ,where x is the independent variable .
Write the equation " add 1 and multiply by 2 " and substitute x by 1,2,3 and 4 to evaluate y .
then complete the table ,then represent the table on a graph .
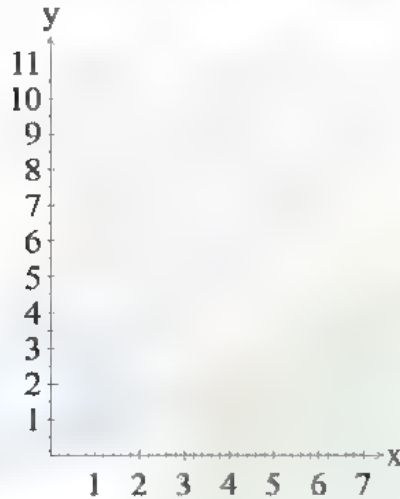
Equation is : ....

X	1	2	3	4
y	....	....	....	....

⑥ Write a verbal phrase for each of the following :
a) f + 10 = m   b) b = 5 – k   c) 2 n + 8 = a

....

....

⑦ Complete the following table according to the equation : y = 3 x – 1

X	1	3	5	7
y	....	....	....	....

⑧ Masa needed to earn at least 100 pounds daily to buy a mobile . find four possible amounts that Masa needed to earn ,then write the inequality that represented this situation .

....

⑨ Joudy paid 3,888 pounds to buy 24 candies . find the price of each box .

....

⑩ Find three rational numbers between 3.5 and 3.6

....

⑪ Write an equation, use the variables x and y, where x is the independent and using the rule " multiply by 8 ",then substitute $x = \frac{1}{2}$ to evaluate y .

....

12 Write each the verbal phrase as an algebraic equation :

(a) m equals twice n increased by 20

(b) y equals the product of eight and x added to 48

13 When m = 3 . solve $9 + (m^2 - 3) \div 2$

14 Rodina has 30 pounds , she will save 10 pounds daily . write the algebraic expression , then evaluate how much money will she have after 1 week ?

15 Write a verbal phrase for each of the following equation :

a) $y = 3x + 1$

b) $y + 5 = x$

c) $g = (h \div 3) + 12$

16 Write an equation, use the variables x and y where x is the independent variable ,then evaluate y

a) The equation " multiply by 6", substitute if x = 7

b) The equation " multiply by 2 and add 3", substitute if x = 2

17 By using the opposite dot plot find :

(a) The median

(b) The mode

(c) The range

18 If the number of goals registered by Al Zamalek in 6 matches are

3, 2, 6, 6, 1, 6

Calculated the mean , median and mode of the number of goals.

19 Rahma runs 3 km on Saturday, 5 km Sunday, 4 km Monday 4 km Tuesday and 4 km Friday

Find the mean distance covered by Rahma .

20 from the opposite box plot, complete

(a) The maximum value = ...

(b) The minimum value = ...

(c) the median = ...

(d) the lower quarter = ...

(e) the upper quarter = ...

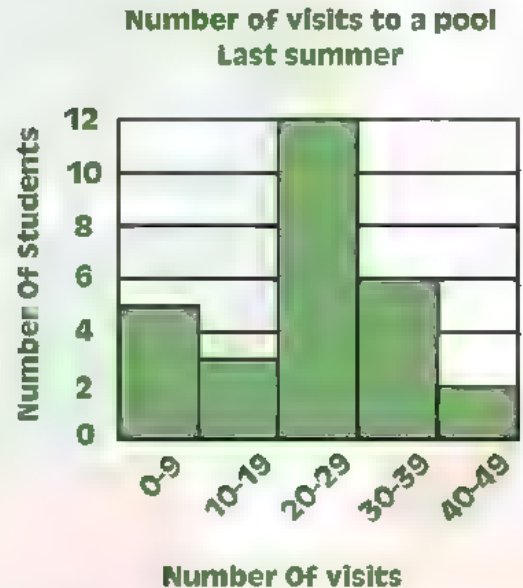10 12 14 16 18 20 22 24
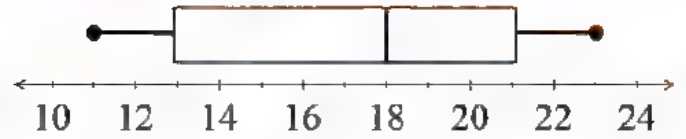
21 <u>Solve each of the following equations :</u>

(a) $\frac{x}{4} = 3$

(b) $12x - 5 = 7$

22 from the histogram shown at the right answer the following questions .

1. Which interval represents the most number of students? ....

2. Which interval has three students?

....

3. How many students went to a pool at least 30 times last summer?

....

4. How many students went to a pool less than ten times last summer?

....

Number of visits to a pool Last summer

Number Of Students

12
10
8
6
4
2
0

0-9 10-19 20-29 30-39 40-49

Number Of visits

تم بحمد الله ،

بسم الله الرحمن الرحيم " إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا " صدق الله العظيم

Answers

First term Questions Bank

Question 01 — Choose the correct answer

1 Take away double the number m from 20 is written as ....
- (a) $20 - m$
- (b) $m - 20$
- (c) $2m - 20$
- (d) $20 - 2m$

2 The volume of the cube of edge length 4 cm is ....cm^3
- (a) 12×4
- (b) $4 + 4 + 4$
- (c) 4^3
- (d) 3^4

3 $3 \times 3 \times 3 \times 3 \times 3 = $ ....
- (a) 3×5
- (b) $3 + 3 + 3 + 3 + 3$
- (c) 3^5
- (d) 5^3

4 $3 + 3 + 3 + 3 + 3 = $ ....
- (a) 3×5
- (b) $3 \times 3 \times 3 \times 3 \times 3$
- (c) 3^5
- (d) 5^3

5 The value of the expression $5 m \div 3$ for $m = 6$ is ....
- (a) 3
- (b) 5
- (c) 6
- (d) 10

6 The first operation you preform in the expression $6 + (5^3 - 4) \div 2$ is ....
- (a) add
- (b) Subtract
- (c) exponent
- (d) Divide

7 The first operation you preform in the expression $6 + 5^3 - (4 \div 2)$ is ....
- (a) add
- (b) Subtract
- (c) exponent
- (d) Divide

9 Seven cubed added to six squared equals ....
- (a) $7 \times 3 + 6 \times 2$
- (b) $6^2 + 7^3$
- (c) $6^2 - 7^3$
- (d) $2^6 + 3^7$

10 Rozana saved x pounds . Mr Mahmoud Elkholy gave her 20 pounds , then she have ....pounds now .
- (a) $X - 20$
- (b) 45
- (c) $X + 20$
- (d) $20 x$

11 If $x + 5 = 8$, then $3x = $ ....
- (a) 3
- (b) 5
- (c) 9
- (d) 15

12 A number if added to 5 the result is 17 , then the number is ....
- (a) 12
- (b) 22
- (c) 5
- (d) 17

13 ....is a solution of the inequality $d > 15$
- (a) 15
- (b) 12
- (c) 20
- (d) All of them

(14) ....is a solution of the inequality d ≥ 15

- (a) 15
- (b) 16
- (c) 20
- (d) All of them

(15) The mode of 7, 9 , 7, 8 , 7, 6, 7 and 10 's...........

- (a) 7
- (b) 8
- (c) 9
- (d) 10

(16) All the dot plots have the following characteristics except ....

- (a) dot plot should have titles
- (b) dot plots should have data graphed above a number line
- (c) the number lines in dot plots should start at 0
- (d) each individual piece of data can be seen on a dot plot and is represented by a dot.

(17) A .... has two axes, horizontal and vertical.

- (a) bar graph
- (b) histogram
- (c) double bar graph
- (d) all of them

(18) The question : what are the students favourite colours? Is a........... question

- (a) stat'stical
- (b) non-statistical
- (c) numerical data
- (d) All of them

(19) The range = the greatest value.......... the smallest values.

- (a) +
- (b) −
- (c) ÷
- (d) ×

(20) The best subset for the number 5 is ....

- (a) Counting numbers
- (b) Rational numbers
- (c) Integers
- (d) natural numbers

(21) The best subset for the number 5.2 is ....

- (a) Counting numbers
- (b) Rational numbers
- (c) Integers
- (d) natural numbers

(22) The Set of counting numbers .... The set of rational numbers

- (a) Belong
- (b) not belong
- (c) subset
- (d) Not subset

(23) The Set of integers .... The set of natural numbers

- (a) Belong
- (b) not belong
- (c) subset
- (d) Not subset

(24) −5 .... The set of rational numbers

- (a) Belong
- (b) not belong
- (c) subset
- (d) Not subset

(25) r is 9 times p added to twice m in the equation is.........

- (a) $r = 9 p + m$
- (b) $r = 2m + 9p$
- (c) $9 r = p + 2m$
- (d) $r + m = 9p$

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26 In the equation : y = x + 1, if the output is 1, then the input is....
- (a) 1
- (b) 3
- (c) 2
- (d) <u>0</u>

27 The order pair which satisfies the rule : y = 3x + 1 is.....
- (a) (0, 0)
- (b) (0, 4)
- (c) (– 1, 1)
- (d) <u>(1, 4)</u>

28 which of the following date set hasn't any outlier?
- (a) 103,104,105,103,102,17
- (b) 24,25,26,21,22,23,204
- (c) <u>300, 309,302,303,305,306,308</u>
- (d) 4,211,212,213,214,215,1000

29 Youssef eat at least 3 oranges , then Youssef may eat ....oranges
- (a) 3
- (b) 5
- (c) 12
- (d) <u>All of them</u>

30 Layan has 25 pounds and Maya has more money than Layan , then Maya may has ....pounds .
- (a) 25
- (b) 20
- (c) <u>100</u>
- (d) All of them

31 Zyad has 16 candies and Kareem has less candies than Zyad , then Kareem may has ....candies .
- (a) 100
- (b) 16
- (c) <u>10</u>
- (d) All of them

32 Jana bought 6 SPIRO SPATHIS and Mohamed bought same number or more ,then Mohamed may bought .... SPIRO SPATHIS .
- (a) 6
- (b) 12
- (c) 100
- (d) <u>All of them</u>

33 All of the following are solutions of inequality x ≤ –8 except ....
- (a) –8
- (b) –10
- (c) <u>–7</u>
- (d) All of them

34 In the equation : 5x + 2 = y, the independent variable is ....
- (a) 5
- (b) 2
- (c) <u>x</u>
- (d) y

35 In the equation : $b = \frac{1}{2} f + 3$,the dependent variable is ....
- (a) 5
- (b) 2
- (c) f
- (d) <u>b</u>

36 The GCF of any two different prime numbers is ....
- (a) 0
- (b) <u>1</u>
- (c) itself
- (d) The smallest number

37 $\frac{3}{6} + \frac{1}{2} - $ ....
- (a) $\frac{1}{2}$
- (b) $\frac{3}{6}$
- (c) <u>1</u>
- (d) $\frac{4}{8}$

38 Which of the following is an equation ?
- (a) 3n + 7
- (b) 7 times the number h
- (c) <u>3 c = 3</u>
- (d) 6 e – 7

(39) (2 , m) satisfies the rule y = 3x – 2 , then m = ...

(a) 1   (b) 2   (c) 3   (d) <u>4</u>

(40) In the equation : y = 2x + 10 , the ordered pair (3 , n) satisfies the equation , then n = ...

(a) 2   (b) 10   (c) <u>16</u>   (d) 30

(41) " Y is 6 times h added to 12 " in equation is ....

(a) 12 = y + 6h   (b) Y = 12 h + 6   (c) H = 6y +12   (d) <u>Y = 6 h + 12</u>

(42) (........ , ...) is called the origin .

(a) (1 , 1)   (b) (0 , 1)   (c) <u>(0 , 0)</u>   (d) (1 , 0)

(43) The greatest negative integer is ....

(a) 1   (b) <u>–1</u>   (c) 0   (d) –1000,000

(44) $\frac{3}{7} + \frac{2}{5} = $ ....

(a) $\frac{5}{12}$ (b) <u>$\frac{29}{35}$</u>   (c) $\frac{1}{2}$ (d) 1

(47) 3(5 + 4) = (3 x ....) + (........x 4)

(a) <u>5,3</u>   (b) 5,4   (c) 3,5   (d) 3,4

(48) In the equation the : y = 2x + 3, the ordered pair (2, a) satisfies the equation then, a = ...

(a) 5   (b) 8   (c) <u>7</u>   (d) 9

(49) The median of the value 4, 7, 8, 1 and 3 is ....

(a) 3   (b) 1   (c) <u>4</u>   (d) 7

(50) The median of B + 1, B + 2, B + 3 is 10, then B –........

(a) 1   (b) 3   (c) 2   (d) <u>8</u>

(51) If the upper quartile of the values : m + 1, m + 2, m + 3, m + 4 , k + 5 , where m is a positive integer is 16.5, then m = ...

(a) 7   (b) 8   (c) <u>12</u>   (d) 10

(52) All the following are numerical data except..........

(a) <u>names</u>   (b) ages   (c) length   (d) temperatures

(53) The opposite of the number 15 is ....

(a) 15   (b) | 15 | (c) <u>–15</u>   (d) | –15 |

(54) The additive inverse of | – 4 | is ....

(a) 4   (b) | 4 | (c) <u>–4</u>   (d) | –4 |

55 In the equation : x = 5 y + 3, the dependent variable is..........

(a) 5y   (b) <u>x</u>   (c) y   (d) 3

56 In the equation : 4 a + 24 = b , the independent variable is..........

(a) <u>a</u>   (b) b   (c) 24   (d) 4a

57 "k equals the product of m and 4" in equation is..........

(a) <u>k = 4 m</u>   (b) k = 4 + m   (c) m = 4 k   (d) m = k + 4

58 which of the following is an equation?

(a) 20 x + 53.2   (b) 2 + m   (c) Y > 12   (d) <u>5 x = 20</u>

59 "30 less than f equals y" in the equation is........

(a) 30 – f = y   (b) 30 + f = y   (c) <u>F – 30 = y</u>   (d) Y – 30 = f

60 If (4,.........) satisfies the rule $y = \frac{1}{2} x + 2$

(a) <u>4</u>   (b) 10   (c) 6   (d) 2

61 $\frac{9}{2}$ .... The set of natural numbers

(a) Belong   (b) <u>Does not belong</u>   (c) subset   (d) Not subset

62 .... is categorical data.

(a) age   (b) phone number   (c) weight   (d) <u>favourite TV show</u>

63 .... is numerical data

(a) nationality   (b) Place of birth   (c) <u>Exam degree</u>   (d) name

64 The LCM of any two different prime numbers is ....

(a) 1   (b) The product of them   (c) The smallest number   (d) The greatest number

65 The dividend in 321 ÷ 12 = 26 R9 is ....

(a) <u>321</u>   (b) 12   (c) 26   (d) 9

66 .... is the better measure of centre for data set with outlier values.

(a) <u>Median</u>   (b) Range   (c) Mode   (d) mean

67 Which of the following is nearest to zero ?

(a) 5   (b) <u>–1</u>   (c) –3   (d) 3

68 The best subset for the number 0 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) <u>natural numbers</u>

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69 Which of the following is the greatest number ?
- (a) –5.3
- (b) –3.5
- (c) 3.5
- (d) 5.3

70 Which of the following is the smallest number ?
- (a) –3.2
- (b) –2.3
- (c) –0.5
- (d) –0.01

71 The best subset for the number -3 is ....
- (a) Counting numbers
- (b) Rational numbers
- (c) Integers
- (d) natural numbers

72 The range can not be found using.........
- (a) dot plot
- (b) histogram
- (c) box plot
- (d) all of them

73 If the mean of 8, 6, x, 5 is 5, then x = ...
- (a) 1
- (b) 2
- (c) 3
- (d) 4

74 The mean of the values "54, 32, 30 ,4"is.........
- (a) 18
- (b) 30
- (c) 4
- (d) 54

75 The LCM of 5 and 15 is ....
- (a) 5
- (b) 15
- (c) 1
- (d) 3

76 The GCF of 5 and 15 is ....
- (a) 5
- (b) 15
- (c) 1
- (d) 3

77 The common factor of all number is ....
- (a) 0
- (b) 1
- (c) 2
- (d) 100

78 If the cost of one ticket "h" and the total cost of 5 tickets "m" ,Then the independent variable is.........
- (a) m
- (b) h
- (c) 5
- (d) 5 h

79 If the cost of one ticket "h" , then total cost of 5 tickets is ....
- (a) m
- (b) h
- (c) 5
- (d) 5 h

80 The order pair which satisfies the equation : $y = x + 2$
- (a) (0, 2)
- (b) (1, 1)
- (c) (2, 1)
- (d) (1, 2)

81 Which of the following is numerical expression ?
- (a) 3(6d + 5)
- (b) 8 + 6
- (c) 2n – 9
- (d) 4 – h

82 Which of the following is algebraic expression ?
- (a) 4(6 + 5)
- (b) 4 – 1 + 2
- (c) 20 ÷ 9
- (d) 3h

83 The integer which comes just after -1 is ....
- (a) 0
- (b) 1
- (c) -2
- (d) -1

84 The integer that is one less than 0 is ....
- (a) 0
- (b) 1
- (c) –2
- (d) –1

85 All counting numbers are also ....
- (a) natural numbers
- (b) Rational numbers
- (c) Integers
- (d) All of them

86 $|-10| > $ ....
- (a) $|-9.99|$
- (b) $|-90|$
- (c) $|-100|$
- (d) $|-15|$

87 $5(8 + ...) \times 7$ is a numerical expression .
- (a) d
- (b) 4f
- (c) 5
- (d) 19 + n

88 $5(8 + ...) \times 7$ is a algebraic expression .
- (a) 5
- (b) 5m
- (c) 18 + 2
- (d) 13

89 Adding 5 to third a number = ...
- (a) $5 + 3x$
- (b) $3x + 5$
- (c) $\frac{1}{3}x - 5$
- (d) $\frac{1}{3}x + 5$

90 The distance between –6 and its opposite on the number line is ....
- (a) 6
- (b) –6
- (c) 12
- (d) –12

91 $|-15| = m$, then m = ...
- (a) –15
- (b) 15
- (c) Both a,b
- (d) neither

92 $|-x| = 5$, then x = ...
- (a) –5
- (b) 5
- (c) Both a,b
- (d) neither

93 The number of terms in the expression $6d + 2 - 5n \div 4$ is .... terms
- (a) 1
- (b) 2
- (c) 3
- (d) 4

94 The like terms in the expression $2f + 2 - 2k - 8$ is ....
- (a) 2f , 2k
- (b) 2 , 8
- (c) 2 , 2k
- (d) 2f , 2

95 The constant in the expression $6d + 2 - 5n$ is ....
- (a) 6
- (b) d
- (c) 5n
- (d) 2

96 The coefficient in the expression $6d + 2$ is ....
- (a) 6
- (b) d
- (c) 6d
- (d) 2

97 The balance (mean) of the following date set 1 , 2 , 3 , 4 , 4 , 6 , 8 is.....
- (a) 2
- (b) 6
- (c) 4
- (d) 8

98 ....is another name for the mean .
- (a) Median
- (b) Range
- (c) Mode
- (d) Average

Question 02 — Complete

(1) 6 cubed = ...6^3..........

(2) 5 squared = ...5^2..........

(3) $5^2 + 6 - 2^3$ = ...23........

(4) If the number of chicken owned is "t" and the number of eggs collected daily is "h" , then the independent variable is ....t....

(5) The lower quartile for the set of data : 5 , 7 , 9 ,10 ,12 ,15 , 20 is...7..

(6) The graph shows gaps and cluster is ..... dot plot.....

(7) The graph shows distribution and spread is .....box plot.....

(8) The upper quartile of the values " 7 , 1 , 6 , 2 , 3 ,1 , 9 " is......7.....

(9) The median of the values "2 , 7 , 10 , 0 , 2 , 5 , 6 , 6 , 12 , 1" is...5.5..

(10) If the upper quartile of the values : x + 14, x + 10, x +12, x + 15, x +16, x + 11, x + 14, x + 17 where x is a positive integer is 18.5, then x =......3 ....

(11) $5x = 20$, then $\frac{1}{2}x$ = ...2........

(12) $100x = 0$, then $12x$ = ..0........

(13) $100x = 100$, then $12x$ = ...12.......

(14) $\frac{x}{5} = 6$, then x = ...30......

(15) $3n = 15$, then n = ...5...........

(16) $X + 5.4 = 7.8$, then x = ...3.4......

(17) $7x = 28$, then $\frac{1}{2}x$ = ...2.......

(18) " F equals the product of m and 6 " as an equation is ......f = 6m ....

(19) The inequality that represent the negative integers is ...... $x \leq -1$ ......

(20) we use...... dot plot.........to see exactly how many times each individual values occurs.

(21) The inequality that represent the positive integers is ...... $x \geq -1$ ....

(22) The smallest natural number is ....0...........

(23) The inequality that represent the non-negative integers is ...$x \geq 0$ ....

(24) The inequality that represent the non-positive integers is ......$x \leq 0$ ....

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24

(25) The graph shows the 5-number summary is .....box plot.....

(26) The graph shows the set of data in form of intervals is .....histogram.....

(27) " Twice x added to 7 equals y " as an algebraic equation is ...$y = 7 + 2x$ ....

(28) " $m = 5d - 5$ " as an verbal is ...m equals 5 times d decreased by 5 ....

(29) In the equation : $d = \frac{5}{9}n - 8$ the dependent variable is ......d..........

(30) The verbal phrase for $k + 10 = 12$ is ....the sum of a number and 10 equals 12 ....

(31) " 20 more than v equals m " in equation is ....$v + 20 = m$..........

(32) The rule is " multiply by 8 " . if $x = \frac{1}{4}$,then y would be ......2..........

(33) 4 more than s equals t in equation is ....$s + 4$ .....

(34) The word phrase for the equation " $h = 8 g$ " is ... h equals 8 times g...

(35) The ordered pair which satisfies the rule: $y = x + 5$ is (1, ..6..)

(36) In the rule : $y = 4x$, if $x = 1.5$ then $y = \cdots 6 ...$

(37) The verbal phrase for : $2m - 4 = 8$ is ....double m increased by 4 equal 8 ......

(38) $5 - 3\frac{2}{5} = ...1\frac{3}{5}......$

(39) " z equals the sum of adding 12 to the product of 4 and y" the equation is ....$z = 4y + 12$....

(40) The dependent variable in the equation $a - 4b + \frac{1}{2}$ is.....a.....

(41) ......range..........= maximum value – minimum value

(42) The maximum values for the set of values " 4,7,9,1,6" is..9...

(43) The favourite colours of a number of pupils are..... categorical...... data.

(44) If the mean of 5 values is 15, then the sum of these values is....75.....

(45) If the marks of 6 pupils in one of the tests are 29, 33,57,40,36 and 49, then the range for these marks is equal to....28....

(46) The number of integers between –5 and –1 are ......3......

(47) The smallest counting number is ....1..........

(48) The value of the expression $2x^2 - (2 \times 3 + 3^2)$ for $x = 3$ is ....3.........

(49) If the price of one pen is 6 pounds , then the price of x pens is ......6x..........

(50) If the price of 10 pens is x pounds , then the price of one pen is ......$x \div 10$..........

(51) In 5^4 the base is ......5..........and the exponent is ......4......

(52) The base is 8 and the exponent is 3 , then the exponential form of this is ......8^3.......

(53) In a square the side length is x then the perimeter is ......4x.... and the area is ...x^2....

(54) .....outlier..... are the values that lie away the other values.

(55) ....median.....is the middle values of the data set.

(56) The additive inverse of -6 is ......6.........

(57) The additive inverse of 0 is ......0.........

(58) The LCM of 5 and 7 is .....35............

(59) .....mode......is the value that occurs most often .

(60) If 50 is the greatest number of data set and the range = 10 ,then The smallest number of this data set equals.....40......

(61) The number -2.5 in the form $\frac{a}{b}$ is .... $-\frac{25}{10}$ ....

(62) The opposite of the number 50 is ......-50.........

(63) The integer which comes just before -9 is ......-10......

(64) The GCF of 5 and 7 is .....1............

(65) The outlier of the following date set 91, 94, 93, 3, 90, 99 is....3....

(66) The mode of the following set "3,4, 5,3,5,7,5,9,5,3" is. .3. ...

(67) The range of the set of values 6, 5, 9,4,11,3, 7 is......8....

(68) If the range of a set of values is 12 and the smallest value is 8, then the largest values is.....20.....

(69) If the sum of a group of values is 18 and the mean of these values is 3, then the number of these values is....6......

(70) The smallest positive integer is ....1...........

(71) The smallest non-negative integer is ....0...........

(72) The greatest non-positive integer is ....0...........

(73) type of data is .... categorical...... or ... numerical......

(74) What is your favourite school subject? is a..... non-statistical.... question.

(75) The GCF of 8 and 9 is .....1............

(76) The LCM of 8 and 9 is ......72............

(77) 864 ÷ 24 = ...36......

(78) .....0.......is a multiple of all numbers .

(79) .....1.......is a factor of all numbers .

(80) The number of terms in the expression $6h + 2d - 3x$ is ......3........terms

(81) The constant in the expression $5f + 2b + 3$ is ......3........

(82) $|-5| + 3 = $ ......8......

(83) The graph shows spread of the data in each quarter is... box plot....

(84) .... numerical........ data is written in the form of numbers.

(85) The types of pens preferred by your class's students is a ....categorical.... date.

(86) The median of the following date set "4, 5,7,7,8,9,9" is...7....

(87) $|-18| \times 0 = $ ....0........

(88) The algebraic expression of a number less than 5 is ....5-x......

(89) The algebraic expression of a number less 5 is ....x-5......

(90) The coefficient in the expression $-5d + 3$ is ......-5......

(91) The product of 5 and a number t is ......5t..........

(92) Twice the difference between a number and 6 is ...2(x-6)..........

Question 03 — Answer the following questions

(1) Simplify the following :

1) $6^2 + 2(24 - 9) \div 3$

2) $8 - 4 \times 6 \div (5 - 3)^3$

1) 46

2) 5

(2) **Mohamed has x pounds . he bought a book for 60 pounds . write the algebraic expression of how much money with him now .**

X – 60

(3) Represent $-2\frac{2}{5}$ on the number line .

(4) Represent $5 \geq x$ on the number line in the set of integers .

(5) Write an equation. Use the variables x and y ,where x is the independent variable .
Write the equation " add 1 and multiply by 2 " and substitute x by 1,2,3 and 4 to evaluate y .
then complete the table ,then represent the table on a graph .
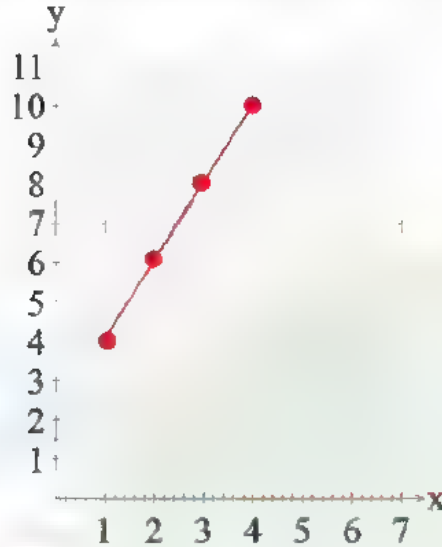
Equation is : .... $(x+1) \times 2$ ....

X	1	2	3	4
y	4	6	8	10

(6) Write a verbal phrase for each of the following :

a) f + 10 = m   b) b = 5 – k   c) 2 n + 8 = a

a) 10 more than f equals m

b) b equals 5 decreased by k

c) the sum of twice n and 8 equals a

(7) Complete the following table according to the equation : $y = 3x - 1$

X	1	3	5	7
y	2	8	14	20

(8) Masa needed to earn at least 100 pounds daily to buy a mobile . find four possible amounts that Masa needed to earn ,then write the inequality that represented this situation .

100 , 150 , 200 , 300   – $x \geq 100$

(9) Joudy paid 3,888 pounds to buy 24 candies . find the price of each box .

$3,888 \div 24 = 162$ pounds

(10) Find three rational numbers between 3.5 and 3.6

3.51 , 3.52 , 3.53

(11) Write an equation, use the variables x and y, where x is the independent and using the rule " multiply by 8 ",then substitute $x = \frac{1}{2}$ to evaluate y .

The equation is $y = 8x$, then $y = \frac{1}{2} \times 8 = 4$

12 Write each the verbal phrase as an algebraic equation :

(a) m equals twice n increased by 20

(b) y equals the product of eight and x added to 48

a) m = 2n + 20

b) y = y = 48 + 8 x

13 When m = 3 . solve $9 + (m^2 - 3) \div 2$

12

14 Rodina has 30 pounds , she will save 10 pounds daily . write the algebraic expression , then evaluate how much money will she have after 1 week ?

The expression is 30 + 10 d

Money with her = 30 + 10 x 7 = 100 pounds

15 Write a verbal phrase for each of the following equation :

a)   y = 3 x +1

b)   y + 5 = x

c)   g = (h ÷3) +12

a) y equals 3 times x increased by 1

b) the sum of y and 5 is x

c) g equals the sum of h divided by 3 and 12

16 Write an equation, use the variables x and y where x is the independent variable ,then evaluate y

a) The equation " multiply by 6", substitute if x = 7

b) The equation " multiply by 2 and add 3", substitute if x = 2

a) y = 6x   , then y= 6 x 7 = 42

b) y = 2x + 3   , then y = 2 x 2 + 3 = 7

17 By using the opposite dot plot find :

(a) The median

(b) The mode

(c) The range
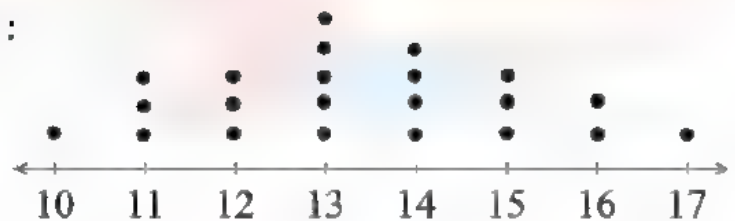
Median= 13   ,   mode = 13   ,   range = 7

18 If the number of goals registered by Al Zamalek in 6 matches are

3, 2, 6, 6, 1, 6

Calculated the mean , median and mode of the number of goals.

Mean = 24 ÷ 6 = 4

Median = 9 ÷ 2 = 4.5

Mode = 6

(19) Rahma runs 3 km on Saturday, 5 km Sunday, 4 km Monday 4 km Tuesday and 4 km Friday
Find the mean distance covered by Rahma .

Mean = 20 ÷ 5 = 4

(20) <u>from the opposite box plot, complete</u>

(a) The maximum value = ...23.....

(b) The minimum value = ...11.....

(c) the median = ...18......

(d) the lower quarter = ...13....

(e) the upper quarter = ...21.....
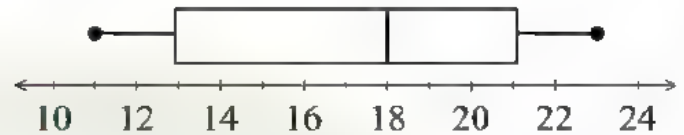
(21) Solve each of the following equations :

(a) $\frac{x}{4} = 3$

(b) $12 x - 5 = 7$

a) **x = 12**

b) **x = 1**

(22) from the histogram shown at the right answer the following questions .

1. Which interval represents the most number of students? ....20-29....

2. Which interval has three students? ....10-19.....

3. How many students went to a pool at least 30 times last summer? ....8.....

4. How many students went to a pool less than ten times last summer? ....5....

Number of visits to a pool Last summer

Number Of visits

تم بحمد الله ،

بسم الله الرحمن الرحيم " إنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا" صدق الله العظيم

المراجعة رقم (4)

الترم الاول

ذاكرولى
RaNia SaYed

Part 1

From: Unit 1, Lesson 1

To: Unit 3, Lesson 3

Final Revision

1 Choose the correct answer

(1) In the equation: $378 \div 25 = 15$ R3 , the dividend is ....

Ⓐ 378   Ⓑ 25   Ⓒ 15   Ⓓ 3

(2) In the equation: $544 \div 12 = 45$ R4 , the divisor is ....

Ⓐ 544   Ⓑ 12   Ⓒ 45   Ⓓ 4

(3) In the equation: $5,314 \div 15 = 354$ R4 , the quotient is ....

Ⓐ 5,314   Ⓑ 15   Ⓒ 354   Ⓓ 4

(4) In the equation: $1,860 \div 32 = 58$ R4 , the remainder is ....

Ⓐ 1,860   Ⓑ 32   Ⓒ 58   Ⓓ 4

(5) In the equation: $2,150 \div 25 = 86$, the remainder is ....

Ⓐ 0   Ⓑ 2,150   Ⓒ 25   Ⓓ 86

(6) $820 \div 24 = 34$ R ......

Ⓐ 0   Ⓑ 2   Ⓒ 4   Ⓓ 6

(7) $6,280 \div 25 = $ ....

Ⓐ 215 $R5$ Ⓑ 251 $R5$ Ⓒ 251   Ⓓ 255 $R1$

(8) A school has 1,440 students which distributed between 24 classes equally. How many students are in each class?

Ⓐ 40   Ⓑ 50   Ⓒ 60   Ⓓ 70

(9) Eslam saves 210 L.E weekly. How much did he save daily?

Ⓐ 10   Ⓑ 20   Ⓒ 30   Ⓓ 40

(10) The smallest prime number is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ 3

(11) The smallest odd prime number is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ 3

(12) The only even prime number is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ 3

(13) The common factor of all numbers is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ 3

(14) The common multiple of all numbers is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ 3

(15) which of the following is a prime number?

Ⓐ 20 Ⓑ 15 Ⓒ 7 Ⓓ 9

(16) which of the following is not a prime number?

Ⓐ 2 Ⓑ 5 Ⓒ 7 Ⓓ 9

(17) The G.C.F of 3 and 5 is ....

Ⓐ 1 Ⓑ 3 Ⓒ 5 Ⓓ 15

(18) The L.C.M of 3 and 5 is ....

Ⓐ 1 Ⓑ 3 Ⓒ 5 Ⓓ 15

(19) The G.C.F of 6 and 12 is ....

Ⓐ 1 Ⓑ 6 Ⓒ 12 Ⓓ 72

(20) The L.C.M of 6 and 12 is ....

Ⓐ 1 Ⓑ 6 Ⓒ 12 Ⓓ 72

(21) The G.C.F of 10 and 15 is ....

Ⓐ 10   Ⓑ 15   Ⓒ 5   Ⓓ 30

(22) The L.C.M of 10 and 15 is ....

Ⓐ 10   Ⓑ 15   Ⓒ 5   Ⓓ 30

(23) In the opposite Venn diagram, the G.C.F is ....

Ⓐ 1   Ⓑ 2

Ⓒ 10   Ⓓ 30

(24) In the opposite Venn diagram, the L.C.M is ....

Ⓐ 1   Ⓑ 2

Ⓒ 10   Ⓓ 30

(25) In the opposite Venn diagram, the G.C.F is ....

Ⓐ 1   Ⓑ 2

Ⓒ 7   Ⓓ 14

(26) In the opposite Venn diagram, the L.C.M is ....

Ⓐ 1   Ⓑ 2

Ⓒ 7   Ⓓ 14

(27) from the opposite Venn diagram G.C.F = ...

Ⓐ 6   Ⓑ 210

Ⓒ 42   Ⓓ 30

(28) from the opposite Venn diagram L.C.M = ...

Ⓐ 6   Ⓑ 210

Ⓒ 42   Ⓓ 30

(29) the G.C.F of two relatively prime numbers is ....

Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(30) which of the following are relatively prime numbers? ....

Ⓐ 2 *and* 10   Ⓑ 4 *and* 9   Ⓒ 4 *and* 6   Ⓓ 8 *and* 6

(31) $35 + 42 = \_\_\_ (5 + 6)$

Ⓐ 35   Ⓑ 30   Ⓒ 6   Ⓓ 7

(32) $16 + 24 = 8 (2 + \_\_\_)$

Ⓐ 24   Ⓑ 16   Ⓒ 2   Ⓓ 3

(33) $8 + 24 = 8 (\_\_\_ + 3)$

Ⓐ 1   Ⓑ 2   Ⓒ 3   Ⓓ 24

(34) $10 + 45 = 5 (\_\_\_ + \_\_\_)$

Ⓐ 10, 40   Ⓑ 5, 40   Ⓒ 9, 5   Ⓓ 2, 9

(35) $\dfrac{2}{5} + \dfrac{3}{10} = \cdots$

Ⓐ $\dfrac{5}{15}$ Ⓑ $\dfrac{7}{10}$ Ⓒ $\dfrac{5}{10}$ Ⓓ $\dfrac{1}{2}$

(36) $\dfrac{3}{4} - \dfrac{5}{8} = \cdots$

Ⓐ $\dfrac{1}{4}$ Ⓑ $\dfrac{1}{8}$ Ⓒ $\dfrac{3}{8}$ Ⓓ $\dfrac{5}{8}$

(37) $5\dfrac{1}{2} + 3\dfrac{1}{5} = \cdots$

Ⓐ $8\dfrac{2}{7}$ Ⓑ $8\dfrac{7}{10}$ Ⓒ $8\dfrac{1}{2}$ Ⓓ $8\dfrac{2}{5}$

(38) $2\dfrac{1}{4} - 1\dfrac{1}{2} = \cdots$

Ⓐ $1\dfrac{1}{2}$ Ⓑ $\dfrac{3}{4}$ Ⓒ $1\dfrac{3}{4}$ Ⓓ $\dfrac{4}{3}$

(39) which is an integer? ....

(A) −0.2   (B) $\frac{1}{2}$ (C) −10   (D) $3\frac{1}{2}$

(40) which of the following numbers is an integer?

(A) $-\frac{24}{5}$ (B) $\frac{4}{8}$ (C) $\frac{15}{5}$ (D) 3.2

(41) the smallest counting number is ....

(A) 0   (B) 1   (C) −1   (D) −10

(42) the smallest natural number is ....

(A) 0   (B) 1   (C) −1   (D) −10

(43) the greatest negative integer is ....

(A) −2   (B) −1   (C) 0   (D) −[−1]

(44) the greatest number from the following is ....

(A) −2   (B) −1   (C) −10   (D) −11

(45) the greatest non-positive integer is ....

(A) 1   (B) 0   (C) −1   (D) 2

(46) the smallest non-negative integer is ....

(A) 1   (B) 0   (C) −1   (D) −[−1]

(47) The number .... is neither positive nor negative.

(A) 1   (B) 0   (C) −1   (D) 2

(48) the integer which just next -5 is ....

(A) −3   (B) −4   (C) −5   (D) −6

(49) the integer which just before -1 is ....

(A) −2   (B) 0   (C) 1   (D) 2

(50) Each number in the set of integers is called ....

(A) element (B) set

(C) subset (D) not subset

(51) the additive inverse of -2 is ....

(A) −2 (B) 2 (C) 0 (D) 4

(52) the opposite of 5 is ....

(A) 5 (B) −5 (C) 0 (D) −7

(53) the opposite of - 5 is ....

(A) 5 (B) −5 (C) 0 (D) −7

(54) the opposite of −[−5] is ....

(A) 5 (B) −5 (C) 0 (D) −7

(55) the opposite of the opposite of 5 is ....

(A) −5 (B) −[−5] (C) 0 (D) 10

(56) in the opposite number line, the integer A is ....

(A) −1 (B) −2

(C) −3 (D) −4
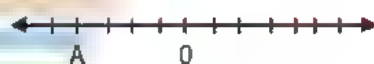
(57) which of the following is nearest to zero? ....

(A) −4 (B) 4 (C) −3 (D) 2

(58) −5 ☐ 3

(A) > (B) < (C) =

(59) −2 ☐ − 7

(A) > (B) < (C) =

(60) −3 ☐ − [−3]

(A) > (B) < (C) =

(61) All the following numbers are rational except ....

ⓐ 0　　　　　　ⓑ 5　　　　　　ⓒ $\frac{1}{7}$　　　　　　ⓓ $\frac{4}{0}$

(62) All the following numbers are rational except ....

ⓐ 0　　　　　　ⓑ $\frac{2}{7}$　　　　　　ⓒ $\frac{1}{7}$　　　　　　ⓓ $\frac{4}{2-2}$

(63) the best subset of the number 1 is ....

ⓐ counting number　　　　　　　　ⓑ natural number

ⓒ integer　　　　　　　　　　　　ⓓ rational number

(64) the best subset of the number 0 is ....

ⓐ counting number　　　　　　　　ⓑ natural number

ⓒ integer　　　　　　　　　　　　ⓓ rational number

(65) The best subset of the number -5 is ....

ⓐ counting number　　　　　　　　ⓑ natural number

ⓒ integer　　　　　　　　　　　　ⓓ rational number

(66) The best subset of the number 4.854 is ....

ⓐ counting number　　　　　　　　ⓑ natural number

ⓒ integer　　　　　　　　　　　　ⓓ rational number

(67) - 4 .... set of counting numbers.

ⓐ belongs to　　　　　　　　　　ⓑ does not belong to

ⓒ is a subset of　　　　　　　　　ⓓ is not a subset of

(68) the opposite of - 5 .... set of natural numbers.

ⓐ belongs to　　　　　　　　　　ⓑ does not belong to

ⓒ is a subset of　　　　　　　　　ⓓ is not a subset of

(69) – 2.5 .... set of integers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   Ⓓ is not a subset of

(70) set of integers .... set of rational numbers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   Ⓓ is not a subset of

(71) set of natural .... set of counting numbers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   Ⓓ is not a subset of

(72) set of counting .... set of integers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   Ⓓ is not a subset of

(73) the number 5 in the form $\frac{a}{b}$ is ....

Ⓐ $\frac{1}{5}$ Ⓑ $\frac{5}{1}$ Ⓒ $-\frac{15}{10}$ Ⓓ 0.5

(74) the number $2\frac{3}{5}$ in the form $\frac{a}{b}$ is ....

Ⓐ $\frac{23}{5}$ Ⓑ $\frac{5}{0}$ Ⓒ $\frac{13}{5}$ Ⓓ 253

(75) the number -1.5 in the form $\frac{a}{b}$ is ....

Ⓐ $-\frac{1}{5}$ Ⓑ $-\frac{5}{1}$ Ⓒ $-\frac{15}{10}$ Ⓓ $-5\frac{1}{10}$

(76) $\frac{3}{5}$ ☐ $\frac{2}{7}$

Ⓐ $>$ Ⓑ $<$ Ⓒ $=$

(77) $-\frac{1}{4}$ ☐ $-\frac{2}{9}$

Ⓐ $>$ Ⓑ $<$ Ⓒ $=$

(78) 0.7 ☐ 0.65

Ⓐ >   Ⓑ <   Ⓒ =

(79) $\frac{2}{8}$ ☐ **0.5**

Ⓐ >   Ⓑ <   Ⓒ =

(80) the greatest number from the following is ....

Ⓐ $\frac{1}{2}$ Ⓑ $\frac{1}{3}$ Ⓒ $\frac{1}{4}$ Ⓓ $\frac{1}{12}$

(81) the smallest number from the following is ....

Ⓐ 0.11   Ⓑ 0.3   Ⓒ $\frac{1}{2}$ Ⓓ 0.15

(82) .... is lying between 3.1 and 3.2

Ⓐ 3.15   Ⓑ 3.21   Ⓒ 3.20   Ⓓ 3.22

(83) the absolute values of 5 is ....

Ⓐ −5   Ⓑ 5   Ⓒ 0.5   Ⓓ 0.125

(84) the absolute values of - $\frac{1}{2}$ is ....

Ⓐ - $\frac{1}{2}$ Ⓑ $\frac{1}{2}$ Ⓒ - $\frac{3}{2}$ Ⓓ $3\frac{1}{2}$

(85) the opposite of $\left|-\frac{1}{2}\right|$ is ....

Ⓐ - $\frac{1}{2}$ Ⓑ $\frac{1}{2}$ Ⓒ - $\frac{3}{2}$ Ⓓ $3\frac{1}{2}$

(86) the absolute value of the opposites of $-2\frac{1}{5}$ is ....

Ⓐ $4\frac{2}{5}$ Ⓑ 0   Ⓒ $-2\frac{1}{5}$ Ⓓ $2\frac{1}{5}$

(87) the absolute values of opposites are ....

Ⓐ equal   Ⓑ different   Ⓒ negative   Ⓓ other

(88) $|2| \times |-2| =$ ....

(A) 0   (B) 4   (C) -4 (D) -1

(89) $|-10| + |-2|$ ☐ $20| - |-10|$

(A) $>$ (B) $<$ (C) $=$

(56) $|-7| >$ ....

(A) $|-6|$ (B) $|-7|$ (C) $-8|$ (D) $|-9|$

(90) which of the following is an algebraic expression? ....

(A) $44 - 3 + 4$ (B) $3 + 7 - 0$

(C) $15a - 32$ (D) $2(3 + 14)$

(91) which of the following is a numeric expression? ....

(A) $46z - 25$ (B) $3x + 7 - 0$

(C) $15a + 2x$ (D) $2(3 + 14)$

(92) The constant in the expression $2x + 5$ is ....

(A) 2   (B) $2x$ (C) $2x + 5$ (D) 5

(93) The coefficient in the expression $2x + 5$ is ....

(A) 2   (B) $2x$ (C) $2x + 5$ (D) 5

(94) The constant in the algebraic expression $5 + 3y + 2x + 1$ are ....

(A) 5,3,2,1   (B) 3,2   (C) 3,2,1   (D) 5,1

(95) The coefficients in the algebraic expression $5 + 3y + 2x + 1$ are ....

(A) 5,3,2,1   (B) 3,2   (C) 3,2,1   (D) 5,1

(96) Which of the following are like terms?

(A) 25,52   (B) $2b, 2c$ (C) ab, aC (D) n, m

(97) The number of terms of the expression: $5 - 2m - 3m + 4$ is ... terms.

Ⓐ 5 Ⓑ -2 Ⓒ -3 Ⓓ 4

(98) the number of like terms in the expression $3 + 2x + 5$ is ....

Ⓐ 1 Ⓑ 2 Ⓒ 3 Ⓓ 4

(99) $2 + 3[\underline{\quad\quad}] + 5$, complete to get a numeric expression.

Ⓐ a Ⓑ k Ⓒ $30 \div 5$ Ⓓ $b + c$

(100) we subtract 5 from the number x, we get ....

Ⓐ $5x$ Ⓑ $5 - x$ Ⓒ $x - 5$ Ⓓ $x + 5$

(101) Three times a number less two is ....

Ⓐ $3x + 2$ Ⓑ $3x - 2$ Ⓒ $2x3x$ Ⓓ $\frac{3x}{2}$

(102) Three times a number less than two is ....

Ⓐ $2 + 3x$ Ⓑ $3x - 2$ Ⓒ $2x3x$ Ⓓ $2 - 3x$

(103) Subtracting 3 from double a number ....

Ⓐ $n - 3$ Ⓑ $2n - 3$ Ⓒ $3n + 2$ Ⓓ $5n$

(104) Twice the difference of a number and 5 is ....

Ⓐ $2y + 5$ Ⓑ $2y - 5$ Ⓒ $2(y + 5)$ Ⓓ $2(y - 5)$

(105) The algebraic expression "Twelve less than three groups of y" is. -----

Ⓐ $12 - 3y$ Ⓑ $3y - 12$ Ⓒ $y - 12$ Ⓓ $12 - y$

(106) Laila saved n L.E. and her mother gave her 5 L.E., she will have ... L.E.

Ⓐ $n - 5$ Ⓑ $n + 5$ Ⓒ $5n$ Ⓓ $5 - n$

2 complete

(1) 8,529 ÷ 25 = 341R ......

(2) The divisor in the equation: 16,692 ÷ 52 = 321 is............

(3) The smallest prime number is ....

(4) The smallest odd prime number is ....

(5) The only even prime number is ....

(6) The common factor of all numbers is ....

(7) The common multiple of all numbers is ....

(8) The G.C.F of 5 and 7 is ....

(9) The L.C.M of 5 and 7 is ....

(10) The G.C.F of 4 and 8 is ....

(11) The L.C.M of 4 and 8 is ....

(12) The G.C.F of 6 and 8 is ....

(13) In the opposite Venn diagram

, the G.C.F is ....

(14) In the opposite Venn diagram

, the L.C.M is ....

(15) In the opposite Venn diagram

, the G.C.F is ....

(16) In the opposite Venn diagram, the

, the L.C.M is ....

(17) The G.C.F of two relatively prime numbers is ....

(18) $8(5 + 4) = 40 + \underline{\quad}$

(19) $18 + 9 = 9\ (\underline{\quad} + \underline{\quad})$

(20) $5\ (2 + \underline{\quad}) = 10 + 35$

(21) $9\ (1 + 2) = 9 + \underline{\quad}$

(22) $\underline{\quad} [5 + 2\ ] = 15 + 6$

(23) $\dfrac{1}{5} + \dfrac{1}{3} = \ ......$

(24) $\dfrac{3}{7} + \dfrac{1}{6} = \ ......$

(25) $\dfrac{1}{4} + \dfrac{1}{12} = \ ......$

(26) $\dfrac{5}{6} - \dfrac{7}{10} = \ ......$

(27) $\dfrac{5}{6} - \dfrac{3}{8} = \ ......$

(28) $10\ \dfrac{1}{2} - 5\ \dfrac{1}{3} = \ ......$

(29) Each number in the set of integers is called ....

(30) The smallest counting number is ....

(31) The smallest natural number is ....

(32) The smallest positive integer number is ....

(33) The greatest negative integer is ....

(34) The greatest non-positive integer is ....

(35) The smallest non-negative integer is ....

(36) The number .... is neither positive nor negative.

(37) The integer which just next – 1 is ....

(38) The integer which just before – 1 is ....

(39) The integers between -3 and 2 are ....

(40) The number of integers between -3 and 2 is ....

(41) The opposite of 3 is ....

(42) The opposite of -3 is ....

(43) The opposite of zero is ....

(44) The distance between the opposite of 4 and 0 on the number line equals .... units.

(45) The distance between the number 2 and its opposite on the number line equals .... units.

(46) The best subset of the number 25 is ....

(47) The best subset of the number 0 is ....

(48) The best subset of the number – 1 is ....

(49) The best subset of the number – 1.5 is ....

(50) $|-7| = $ ....

(51) $|0| = $ ....

(52) $|-3| + |2| = $ ....

(53) $|-3| \times |-5| = $ ....

(54) $|-2| \times |0| = $ ....

(55) positive integer $\Box$ negative integer

(56) zero $\Box$ negative integer

(57) zero $\Box$ positive integer

(58) 3 $\Box$ – 7

(59) – 12 $\Box$ – 4

(60) 2.5 $\Box$ 2.47

(61) The additive invers of 5 $\Box$ – 5

(62) $|-3|$ $\Box$ $|-1|$

(63) $|-1|$ $\Box$ $-[-1]$

(64) $|-5|$ $\Box$ 2

(65) $|-2.71|$ $\Box$ 2.7

(66) $|-10| + |-2|$ $\Box$ $|20| - |-10$

(67) The opposite of $\left|-\frac{1}{2}\right|$ is ....

(68) The constant in the expression $3y + 2x - 5$ is ....

(69) The constant in the expression $2x + y$ is ....

(70) The coefficient in the expression $3y + 2x - 5$ is ....

(71) The coefficient in the expression $1.5 + 4 - 5$ is ....

(72) The verbal expression from "$x + 2$" is ....

(73) The verbal expression from "$y - 5$" is ....

(74) The verbal expression from "$5x$" is ....

(75) The verbal expression from "$4 - 3n$" is ....

(76) The algebraic expression for "a number less 7" is ....

(77) The algebraic expression for "a number less than 7" is ....

(78) The algebraic expression for " Subtract 3 from the number y "is ....

(79) The algebraic expression for

"Four times the sum of a number and seven" is ....

(80) The algebraic expression for

"Add 5 to the doubte of the number x" is ....

3 Answer the following questions

(1) Using the following Venn diagram, complete

a- The two numbers represented in the Venn diagram are ------- and -------

b- The G.C.F of the two numbers is -----------------------

c- The L.C.M of the two numbers is -----------------------

d- Are the two numbers relatively prime numbers? (Yes – No)

(2) Using the following Venn diagram, complete

a- The two numbers represented in the Venn diagram are ------- and -------

b- The G.C.F of the two numbers is -----------------------

c- The L.C.M of the two numbers is -----------------------

d- Are the two numbers relatively prime numbers? (Yes – No)

(3) Using the following Venn diagram, complete

x = ...

y = ...

The GCF = ...

The LCM = ...

The expression = ... (........ + ...)
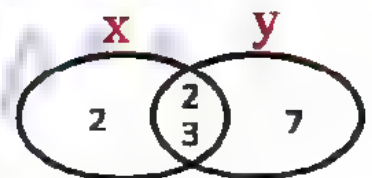
(4) Use Venn diagram to find G.C.F and L.C.M of:

15 and 10
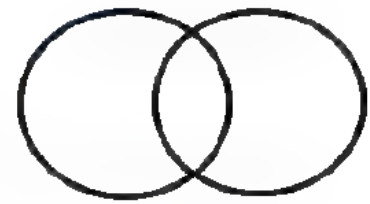
(5) Order the given set of numbers from least to greatest.

$$2.1 \, , 1.4 \, , -3\frac{1}{4} \, , -1\frac{7}{8} \, , 2\frac{1}{2}$$

(6) Ahmed has 10 L.E. in her money box, he will save 5 L.E. daily.

a- What algebraic expression represent this situation?

b- How much money in the money box after 3 days?

(7) Find two rational numbers lies between: $\dfrac{3}{4}$ and $\dfrac{4}{5}$

....

....

....

(8) Find two rational numbers lies between: -1.2 and -1.3

....

....

....

(9) Represent the numbers on the number line.

-3, 3, 5, 0, -2, -1

0

(10) A factory produces 1,645 pieces of cloth weekly.

How many pieces did the factory produce daily?

....

....

....

....

Part 2

From: Unit 3, Lesson 4

To: Unit 5

Final Revision

1 Choose the correct answer.

(1) In 2^3: the base is ....

  (A) 2   (B) 3   (C) 2^3 (D) 8

(2) In 2^3: the exponent is ....

  (A) 2   (B) 3   (C) 2^3 (D) 8

(3) In 7^4: 4 is called ....

  (A) exponent   (B) power   (C) index   (D) all of them

(4) In .... 4 is called the base and 2 is called the exponent.

  (A) 2   (B) 4^2 (C) 8   (D) 16

(5) If the base is 5 and the exponent is 3, then the exponential form of the number is ....

  (A) 15   (B) 5^2 (C) 3^5 (D) 5^3

(6) 3 to the power of 4 = ...

  (A) 3   (B) 4   (C) 12   (D) 81

(7) $2 \times 2 \times 2$ = ...

  (A) 2^1 (B) 2^2 (C) 2^3 (D) 2^4

(8) 5^4 = ...

  (A) $5 \times 5 \times 5$ (B) $5 \times 5 \times 5 \times 5$ (C) $4 \times 4 \times 4$ (D) 5×4

(9) $y \times y$ = ...

  (A) y   (B) 2y   (C) y^2 (D) 0

(10) 1^{100} = ...

  (A) 1   (B) 10   (C) 100   (D) 1000

(11) $2^1 = $ ....

  Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(12) $5^{......} = 5$

  Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(13) $3^0 = $ ....

  Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(14) $y^0 = $ ....

  Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(15) $9^{......} = 1$

  Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(16) Squared 7 = ...

  Ⓐ 7   Ⓑ 14   Ⓒ 49   Ⓓ 70

(17) Cubed 2 = ...

  Ⓐ 2   Ⓑ 4   Ⓒ 8   Ⓓ 16

(18) Two cubed added to two squared equals ....

  Ⓐ $2^2 + 3$ Ⓑ $2^3 + 2^2$ Ⓒ $2^3 - 2^2$ Ⓓ 0

(19) The first operation you perform in the expression $5 \times (3 - 2) + 7$ is ....

  Ⓐ add   Ⓑ sbtract   Ⓒ multiply   Ⓓ exponent

(20) The value of the expression $2m - 4$ for $m = 3$ is ....

  Ⓐ 0   Ⓑ 2   Ⓒ 3   Ⓓ 4

(21) The value of the expression $3n - 2$ for $n = 7$ is ....

  Ⓐ 14   Ⓑ 19   Ⓒ 21   Ⓓ 23

(22) The value of the expression $x + 3^2$ for $x = 1$ is ....

(A) 7   (B) 16   (C) 10   (D) 12

(23) Which of the following expression has the same value of $3x + 5$ at $x = 3$

(A) $3(x + 1) + 5$ (B) $4x + 1$ (C) $5x + 3$ (D) $x^2 + 5$

(24) If $x + 2 = 9$, then $x = $ ....

(A) 2   (B) 5   (C) 7   (D) 9

(25) If $y + 3 = 5$, then $4y = $ ....

(A) 2   (B) 4   (C) 8   (D) 22

(26) If $k + 1 = 5$, then twice $k = $ ....

(A) 1   (B) 4   (C) 5   (D) 8

(27) If $x + 4.5 = 5.7$, then $x = $ ....

(A) 1.2   (B) 1.3   (C) 9.2   (D) 10.2

(28) If $y - 3 = 10$, then $y = $ ....

(A) 12   (B) 13   (C) 14   (D) 15

(29) If $m - 3^2 = 1$, then $m = $ ....

(A) 10   (B) 3   (C) 1   (D) 6

(30) If $z \times 6 = 48$, then $z = $ ....

(A) 6   (B) 7   (C) 8   (D) 48

(31) If $5y = 35$, then $y = $ ....

(A) 6   (B) 7   (C) 8   (D) 35

(32) If $5a = 0$, then $a = $ ....

(A) 0   (B) 1   (C) 2   (D) 3

(33) The product of a number x and 6 is 42, then x = ………

   Ⓐ 6   Ⓑ 7   Ⓒ 36   Ⓓ 48

(34) If x + x = 4, then x = ………

   Ⓐ 4   Ⓑ $4x$ Ⓒ 8   Ⓓ 2

(35) If m + m + m = 18, then m = ………

   Ⓐ 3y   Ⓑ 18   Ⓒ 6   Ⓓ 5

(36) If a ÷ 2 = 8, then a = ………

   Ⓐ 2   Ⓑ 4   Ⓒ 16   Ⓓ 8

(37) If a ÷ 2 = 8, then $\frac{1}{4}$ a = ………

   Ⓐ 2   Ⓑ 4   Ⓒ 16   Ⓓ 8

(38) If 36 ÷ y = 9, then y = ………

   Ⓐ 2   Ⓑ 4   Ⓒ 9   Ⓓ 36

(39) If 7 − y = 2, then y = ………

   Ⓐ 2   Ⓑ 3   Ⓒ 4   Ⓓ 5

(40) The number of solutions of the equation: x + 1 = 5 is ………

   Ⓐ 1   Ⓑ 4   Ⓒ 5   Ⓓ infinite

(41) The number of solutions of the inequality: x <1 is ………

   Ⓐ 1   Ⓑ 4   Ⓒ 5   Ⓓ infinite

(42) Which of the following is a solution of the inequality: m ≥ −1 is ………

   Ⓐ −2   Ⓑ −3   Ⓒ −4   Ⓓ 0

(43) Which of the following is a solution of the inequality: x < −5 is ………

   Ⓐ −6   Ⓑ −7   Ⓒ −8   Ⓓ all of them

(44) .... is a solution of x < −2

(A) −1 (B) −6 (C) 2 (D) 0

(45) All the following are solutions of the inequality: x > −3 except ....

(A) −2 (B) 5 (C) 0 (D) −5

(46) All the following are solutions of the inequality: m < −1 except ....

(A) −5 (B) −4 (C) −3 (D) −1

(47) The smallest solutions of the inequality: x ≥ 2 is ....

(A) 5 (B) 4 (C) 3 (D) 2

(48) The inequality that represents the following graph is ....
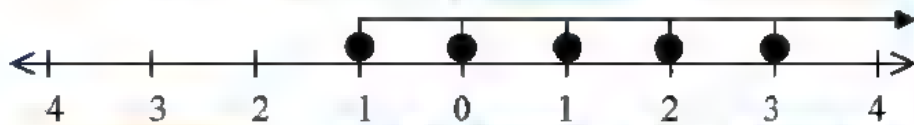
(A) x > −1 (B) x ≥ −1 (C) x < −1 (D) x ≤ −1

(49) The inequality that represents the following graph is ....
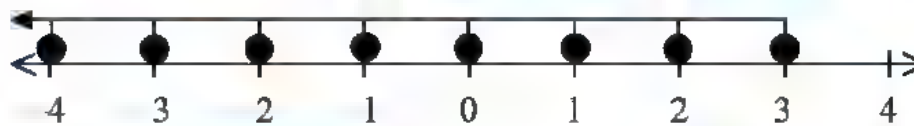
(A) m > 3 (B) m ≥ 3 (C) m < 3 (D) m ≤ 3

(50) Ahmed can read more than 5 books monthly. Which inequality represent the number of books that Ahmed read monthly?

(A) x > 5 (B) x ≥ 5 (C) x < 5 (D) x ≤ 5

(51) Ahmed can read at least 5 books monthly. Which inequality represent the number of books that Ahmed read monthly?

(A) x > 5 (B) x ≥ 5 (C) x < 5 (D) x ≤ 5

(52) Mohamed has 20 L.E. his friend Ali has less money than Mohamed, then Ali may has .... L.E

(A) 52 (B) 44 (C) 30 (D) 12

(53) Which of the following is an equation?

Ⓐ $20 + 2x$ Ⓑ 2 times y

Ⓒ $3 + a$ Ⓓ $2 + 3y = x$

(54) In the equation: $x = 4y + 3$ the dependent variable is ....

Ⓐ x   Ⓑ y   Ⓒ 3   Ⓓ 4

(55) In the equation: $x = 4y + 3$ the independent variable is ....

Ⓐ x   Ⓑ y   Ⓒ 3   Ⓓ 4

(56) The algebraic equation of " 8 more than s equals t " is ....

Ⓐ $8s = t$ Ⓑ $8t = s$

Ⓒ $8 + s = t$ Ⓓ $8 + t = s$

(57) The algebraic equation of " m equals the product of n and 3 " is ....

Ⓐ $m = 3n$ Ⓑ $m = 3 + n$

Ⓒ $n = 3m$ Ⓓ $n = 3 + m$

(58) The algebraic equation of " 4 times c is added to 7 equals k " is ....

Ⓐ $4c + 4 = k$ Ⓑ $7k + 4 = c$

Ⓒ $4c + 7 = k$ Ⓓ $4k + 7 = c$

(59) The algebraic equation of " m equals twice n increased by 5 " is ....

Ⓐ $m = n + 5$ Ⓑ $m = 2n$

Ⓒ $m = 2n + 5$ Ⓓ $m = n$

(60) The word phrase for the equation " $x = 4 + y$ " is ....

Ⓐ x equals 4 more than y.   Ⓑ x equals 4 times y.

Ⓒ x equals 4 less than y.   Ⓓ x equals 4 decreased by y.

(61) The word phrase for the equation " m = 2n " is ………

Ⓐ m equals 2 more than n. Ⓑ m equals 2 times n.

Ⓒ m equals 2 less than n. Ⓓ m equals 2 decreased by n.

(62) In the equation: y = 2 + x, if x = 3, then y = ………

Ⓐ 2 Ⓑ 3 Ⓒ 4 Ⓓ 5

(63) In the equation: y = 3x, if x = 5.1, then y = ………

Ⓐ 8.1 Ⓑ 53.1 Ⓒ 15.3 Ⓓ 18.3

(64) In the equation: y = 2x, if y = 8, then x = ………

Ⓐ 2 Ⓑ 4 Ⓒ 6 Ⓓ 8

(65) In the equation: y = x + 1, if the input is 1, then the output is ………

Ⓐ 2 Ⓑ 4 Ⓒ 6 Ⓓ 8

(66) In the equation: y = x – 6, if the output is 2, then the input is ………

Ⓐ 2 Ⓑ 4 Ⓒ 6 Ⓓ 8

(67) The ordered pair which satisfies the equation: y = x + 1 is ………

Ⓐ (0 , 2) Ⓑ (1 , 1) Ⓒ (1 , 2) Ⓓ (2 , 1)

(68) The ordered pair which satisfies the equation: y = 2x is ………

Ⓐ (2 , 5) Ⓑ (3 , 0) Ⓒ (0 , 1) Ⓓ (0 , 0)

(69) The ordered pair (2, a) satisfies the equation: y = 2x + 1, then a = ………

Ⓐ 2 Ⓑ 3 Ⓒ 4 Ⓓ 5

(70) The ordered pair (2, b) satisfies the equation: $y = x^2 – 2$, then b = ………

Ⓐ 2 Ⓑ 3 Ⓒ 4 Ⓓ 5

2 **complete**

(1) In 3^5: the base is .... And the exponent ....

(2) In .... 5 is called the base and 3 is called the exponent.

(3) In 4^2: 4 is called .... and 2 is called ....

(4) If the base is 7 and the exponent is 5, then the exponential form of the number is ....

(5) Area of the square whose side length 5 cm in the exponential form is .... cm^2

(6) Volume of the cube whose edge 4 cm in the exponential form is .... cm^3

(7) $3^4 = $ ....

(8) $2 \times 2 \times 2 \times 2 = $ ....

(9) $y \times y \times y = y$

(10) 5 squared = ...

(11) 2 cubed = ...

(12) The value of the expression $2m - 2^2$ for $m = 2$ is ....

(13) The value of the expression $9 + (p^2 - 3) \div 2$ for $p = 5$ is ....

(14) If $x + 3 = 12$, then $x = $ ....

(15) If $x + \dfrac{1}{3} = 3$, then $x = $ ....

(16) If m – 3 = 7, then 2m = ...

(17) If 3y = 12, then 5y = ...

(18) If k ÷ 3 = 5, then k = ...

(19) If a ÷ 4 = 3, then 3a = ...

(20) If $\dfrac{y}{3}$ = 5, then y = ...

(21) 3y – 5 = 7, the y = ...

(22) 3x + 8 = 29, then x = ...

(23) The number of solutions of the equation: x + 1 = 5 is .... Solution.

(24) The number of solutions of the inequality: x < 1 is ....

(25) The inequality that represents: all values "greater than -1" is ....

(26) The inequality that represents: all values "greater than or equal -1 "

is ....

(27) The inequality that represents: all values "less than 2" is ....

(28) The inequality that represents: all values "less than or equal 2" is ....

(29) The inequality that represents: the set of counting numbers is ....

(30) The inequality that represents: the set of natural numbers is ....

(31) The inequality that represents: the set of positive integers is ....

(32) The inequality that represents: the set of negative integers is ....

(33) The inequality that represents: the set of non-positive integers is ....

(34) The inequality that represents: the set of non-negative integers is ………

(35) The inequality that represents: the following graph is ………
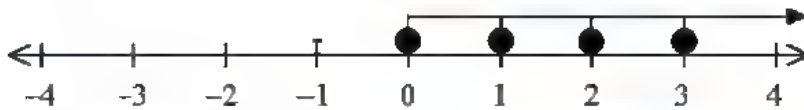
(36) In the equation: $y = x + 2$ the dependent variable is ………

(37) In the equation: $3y - 6 = x$ the independent variable is ………

(38) The algebraic equation of " m equals twice n increased by 25 " is ………

(39) The algebraic equation of " the product of 2 and y plus 22 equals x "

is ………

(40) The word phrase for the equation " $y = 2x$ " is ………

(41) The word phrase for the equation " $a + 5b = c$ " is ………

(42) In the equation: $y = 2x + 5.2$, if $x = 2$, then $y = $ ………

(43) In the equation: $y = x + \dfrac{1}{3}$, if $x = 5$, then $y = $ ………

(44) In the equation: $y = x + 1$, if the input is 1, then the output is ………

(45) In the equation: $y = 3x$, if the output is 9, then the input is ………

(46) The ordered pair $(1, c)$ satisfies the equation: $y = 2x + 1$, then $c = $………

(47) $(4, ………)$ satisfies the equation: $y = \dfrac{1}{2}x + 4$

(48) Complete the following table according to the equation $y = 2x + 1$

X	0	1	2	3
y				

(49) If the equation: $y = x + 3$ is represented by the table, then a = ………

X	1	2	3
y	4	a	6

(50) The equation which represents the table is ………

X	0	2	4	6
y	0	4	8	12

3 **Answer the following questions.**

1) Use the order of operations to simplify.

    a. $(15 - 9) + 3 \times 4^2 \div 2$

    b. $40 + 5(3^2 - 7) + 10$

2) Evaluate the expression: $5x^2 + 8 \div (6 - 4) \div 2$ at $x = 3$

3) Check the two expressions are equivalent or not.

    $5x + 3$ and $3x + 5$

4) Solve each of the following questions:

a) $5t = 20$

....

b) $7 + c = 17.8$

....

c) $2x + 3 = 15$

....

5) Represent the inequality $x \geq 1$ on the number line in the set of integers.
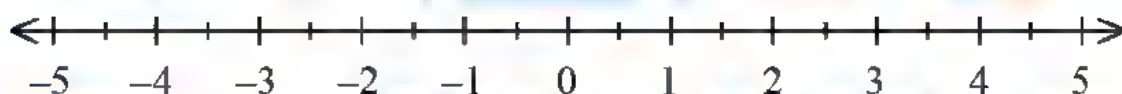
6) Write an equation use the variables x and y, where x is the independent,

If the rule is "multiply by 8 and add 3". The equation: ....

if $x = 3$, then $y = $ ....

7) Complete the following table, then make the graph.

The equation: $y = 2x + 1$

X	0	1	2	3
y				

Part 3

From: Unit 6

To: Unit 7

Final Revision

1 Choose the correct answer

(1) .... is a categorical data.

   Ⓐ date of birth Ⓑ age   Ⓒ Favorite sport   Ⓓ weight

(2) .... is a numerical data.

   Ⓐ Your name Ⓑ age   Ⓒ Favorite color   Ⓓ Favorite sport

(3) Your name is .... data.

   Ⓐ numerical   Ⓑ categorical Ⓒ quantitative   Ⓓ otherwise

(4) Your age is .... data.

   Ⓐ numerical   Ⓑ categorical Ⓒ descriptive   Ⓓ otherwise

(5) All the following data are numerical except ....

   Ⓐ height   Ⓑ age   Ⓒ color   Ⓓ weight

(6) All the following data are descriptive except ....

   Ⓐ name   Ⓑ sport   Ⓒ color   Ⓓ age

(7) The .... is the middle value of the data set.

   Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ Outlier

(8) The minimum of the values (4, 7, 8, 1, 3) is ....

   Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ 7

(9) The maximum of the values (4, 7, 8, 1, 3) is ....

   Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ 8

(10) The median of the values (4, 7, 8, 1, 3) is ....

   Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ 7

(11) The median of the values (2, 3, 5, 7, 8, 10) is ....

   Ⓐ 2   Ⓑ 3   Ⓒ 5   Ⓓ 6

(12) The median of the following data which represented by the dot plot
is …………

(A) 2　　　　(B) 3　　　　(C) 4　　　　(D) 5

(13) The lower quartile of the values (5, 7, 9, 10, 12, 15, 20) is …………

(A) 7　　　　(B) 10　　　　(C) 15　　　　(D) 9

(14) The upper quartile of the values (5, 7, 9, 10, 12, 15, 20) is …………

(A) 7　　　　(B) 10　　　　(C) 15　　　　(D) 9

(15) If the median of $(a + 1, a + 2, a + 3)$ is 10, then $a =$ …………

(A) 1　　　　(B) 2　　　　(C) 3　　　　(D) 8

(16) The median of the values represented on the opposite box plot
is …………

(A) 2　　　　(B) 3　　　　(C) 5　　　　(D) 6

(17) The minimum of the values represented on the opposite box plot
is …………

(A) 1　　　　(B) 3　　　　(C) 5　　　　(D) 8

(18) The maximum of the values represented on the opposite box plot is ....

Ⓐ 1   Ⓑ 3   Ⓒ 8   Ⓓ 9

(19) The lower quartile of the values represented on the opposite box plot is ....

Ⓐ 1   Ⓑ 3   Ⓒ 5   Ⓓ 8

(20) The **upper quartile** of the values represented on the opposite box plot is ....

Ⓐ 1   Ⓑ 3   Ⓒ 5   Ⓓ 8

(21) From the opposite box plot the difference between the upper quartile and the lower quartile = ...

Ⓐ 1   Ⓑ 3   Ⓒ 5   Ⓓ 8

(22) Which display makes it easier to see the median?

    Ⓐ histogram   Ⓑ box plot   Ⓒ dot plot   Ⓓ bar graph

(23) The shape shows the set of data in the form of intervals is ....

    Ⓐ histogram   Ⓑ box plot   Ⓒ dot plot   Ⓓ bar graph

(24) $\dfrac{\text{sum of values}}{\text{numer of values}} = $ ....

    Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ Outlier

(25) Mean = sum of values .... number of values.

    Ⓐ +   Ⓑ −   Ⓒ ×   Ⓓ ÷

(26) The mean of the data set (7, 13, 6, 2) is ....

    Ⓐ 13   Ⓑ 7   Ⓒ 6   Ⓓ 2

(27) The average of the data set (3, 9, 5, 16, 7) is ....

    Ⓐ 6   Ⓑ 7   Ⓒ 8   Ⓓ 9

(28) The balance of the following data   is ....

    Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ 6

(29) The mean of the following data   is ....

    Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ 6

(30) If the sum of 4 numbers is 20, then the mean of these numbers is ....

    Ⓐ 4   Ⓑ 20   Ⓒ 5   Ⓓ 6

(31) If the total score of 5 students in math is 60 then, the mean is ....

  Ⓐ 5   Ⓑ 6   Ⓒ 10   Ⓓ 12

(32) If the mean of $(8, 6, x, 5)$ is 5, then $x =$ ....

  Ⓐ 4   Ⓑ 3   Ⓒ 2   Ⓓ 1

(33) If the mean for 5 values is 9 then, the sum of these values is ....

  Ⓐ 25   Ⓑ 35   Ⓒ 45   Ⓓ 55

(34) The .... is the most occurs values of the data.

  Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ Outlier

(35) A set of values with two modes are called ....

  Ⓐ non-modal   Ⓑ bimodal   Ⓒ trimodal   Ⓓ multimodal

(36) The mode of $(5, 3, 10, 4, 11, 3)$ is ....

  Ⓐ 3   Ⓑ 4   Ⓒ 5   Ⓓ 10

(37) The mode of the following data   is ....

  Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ 6

(38) If the mode of the values $(10, 2, x + 6)$ is 10 then $x =$ ....

  Ⓐ 2   Ⓑ 4   Ⓒ 6   Ⓓ 8

(39) If the mode of the values $(2, 5, 3 - y)$ is 2 then $y =$ ....

  Ⓐ 5   Ⓑ 1   Ⓒ 2   Ⓓ 7

(40) The .... is value that lie away the other values.

  Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ outlier

(41) The outlier of the values: $(24, 23, 22, 3, 28)$ is ....

  Ⓐ 1   Ⓑ 3   Ⓒ 5   Ⓓ 15

(42) If the outlier is smaller than other values, then the outlier .... the mean.

   Ⓐ increase   Ⓑ decrease   Ⓒ stay the same   Ⓓ otherwise

(43) If the outlier is greater than other values, then the outlier .... the mean.

   Ⓐ increase   Ⓑ decrease   Ⓒ stay the same   Ⓓ otherwise

(44) Which is better to use if the dot plots are distributed in one side of the graph?
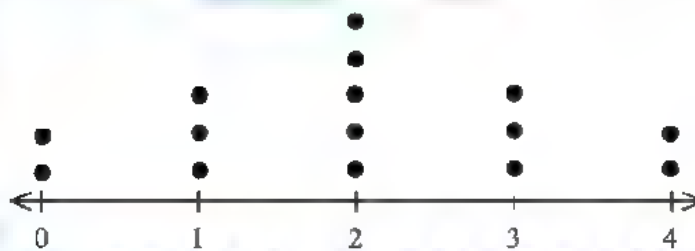
   Ⓐ median   Ⓑ Mean   Ⓒ either mean or median

(45) Which is better to use if the dot plots are distributed in two side of the graph without symmetry?

   Ⓐ median   Ⓑ Mean   Ⓒ either mean or median

(46) Which is better to use if the dot plots are distributed symmetrically on the graph?

   Ⓐ median   Ⓑ Mean   Ⓒ either mean or median

(47) The better measure of the central tendency of the following data set is ....

   Ⓐ Median   Ⓑ Mean   Ⓒ either mean or median

(48) The .... is the better measure of central tendency for data set with outlier.

   Ⓐ median   Ⓑ Mean   Ⓒ otherwise.

(49) The .... is the better measure of central tendency for data set with no outlier.

Ⓐ median   Ⓑ Mean   Ⓒ otherwise.

(50) .... = the greatest value – the smallest value.

Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ Range

(51) Range = max .... min.

Ⓐ +   Ⓑ –   Ⓒ ×   Ⓓ ÷

(52) The difference between the greatest value and the smallest value in the data set is called ....

Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ Range

(53) The range of the set of values (7, 3, 6, 9, 5) is ....

Ⓐ 3   Ⓑ 4   Ⓒ 6   Ⓓ 12

(54) If the values of data set start from 20 to 50, then the range = ...

Ⓐ 20   Ⓑ 30   Ⓒ 40   Ⓓ 50

(55) The range of the following data ~~[dot plot]~~ is ....

Ⓐ 1   Ⓑ 4   Ⓒ 5   Ⓓ 6

(56) The range of the following data ~~[box plot]~~ is ....

Ⓐ 3   Ⓑ 5   Ⓒ 7   Ⓓ 8

(57) The range cannot be found using ....

Ⓐ box plot   Ⓑ dot plot   Ⓒ histogram   Ⓓ otherwise

2 **complete**

(1) The type of statistical questions are .... and ....

(2) The minimum value of (2, 3, 5, 1, 15) is ....

(3) The maximum value of (2, 3, 5, 1, 15) is ....

(4) .... is the middle value of the data set.

(5) The median of the set of value (5, 7, 8, 3, 6) is ....

(6) The median of the set of value (9, 8, 7, 3, 5, 1) is ....

(7) The average of (3, 4, 6, 6, 7, 8) is ....

(8) The lower quartile of the set of value (7, 6, 2, 9, 6, 0, 6) is ....

(9) The upper quartile of the set of value (7, 6, 2, 9, 6, 0, 6) is ....

(10) If the median of $(k + 1, k + 2, k + 5, k + 4, k + 3)$ is 13, then $k =$ ....

(11) If the median of values $(x - 3, x - 1, x - 5)$ is 5, then $x =$ ....

(12) The shape shows the set of data in form of intervals is ....

(13) .... $= \dfrac{\text{sum of values}}{\text{numer of values}}$

(14) Mean = sum of values .... number of values.

(15) The mean of the data set (18, 35, 24, 6) is ....

(16) The mean of the data set (3, 5, 4, 7, 6) is ....

(17) The average of the data set (10, 10, 10, 10) is ....

(18) If the sum of 5 numbers is 30, then the mean of these numbers is ......

(19) If the total score of 4 students in math is 40 then, the mean is …………

(20) If the mean of (3, 5, x) is 4, then x = …………

(21) If the mean for 4 values is 10 then, the sum of these values is …………

(22) The ………… is the most occurs values of the data.

(23) A set of values with two modes are called …………

(24) The mode of (7, 10, 15, 7, 10, 13, 7, 15, 7) is …………

(25) If the mode of the values (2, 7, x – 3) is 2 then x = …………

(26) The ………… is value that lie away the other values.

(27) The outlier of the values: (7, 46, 47, 49, 50) is …………

(28) The two outliers of the values: (23, 205, 207, 200, 209, 1000) are ………… and …………

(29) The outlier in the opposite dot plot is ………

(30) If the outlier is smaller than other values, then the outlier………… the mean.

(31) If the outlier is greater than other values, then the outlier ………… the mean.

(32) The ………… is the better measure of central tendency for data set with outlier.

(33) The ………… is the better measure of central tendency for data set with no outlier.

(34) Range = ………….. – …………..

(35) The difference between the greatest value and the smallest value in

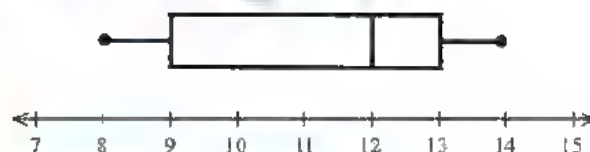the data set is called …………

(36) The range cannot be found using …………

(37) The range of the numbers $(16, 15, 9, 6)$ is …………

(38) If the values of data set start from 30 to 60, then the range of this

data = …………..

(39) The range of the following data is …………
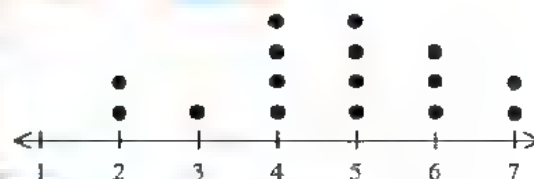
(40) The range of the following data is …………

(41) If the range of data set is 34 and the smallest value is 45, then the

greatest number is …………

(42) If 88 is the greatest number of data set and the range = 21, then the

smallest number is …………

3 Answer the following questions

(1) From the opposite box plot, complete:

a) The minimum value = ...

b) The maximum value = ...

c) The median = ...

d) The lower quartile = ...

e) The upper quartile = ...
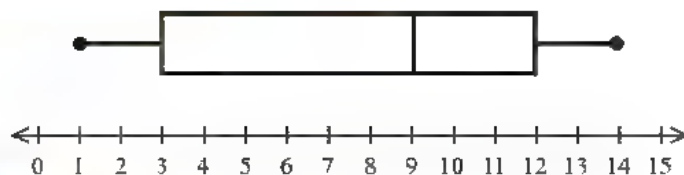
(2) From the opposite box plot, complete:

a) The minimum value = ...

b) The maximum value = ...

c) The median = ...

d) The lower quartile = ...

e) The upper quartile = ...
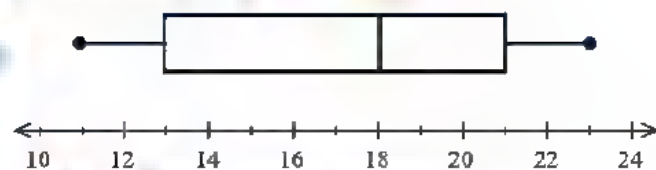
(3) For the set of values: 10, 9, 8, 7, 6, 4, 2:

a) The minimum value = ...

b) The maximum value = ...

c) The median = ...

d) The lower quartile = ...

e) The upper quartile = ...

(4) Draw a box plot for the values (5, 1, 9, 4, 3, 6, 2)

a) The minimum value = ...

b) The maximum value = ...

c) The median = ...

d) The lower quartile = ...

e) The upper quartile = ...
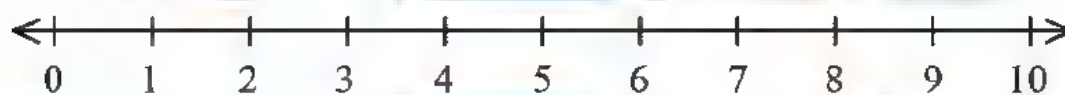
(5) By using the opposite dot plot find:

a) The mean = ...

b) The median = ...

c) The mode = ...
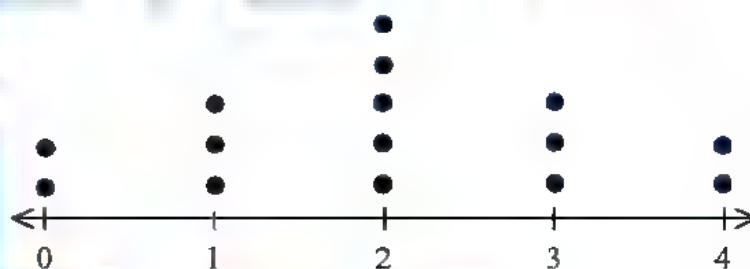
d) The range = ...

(6) For the set of values: 2, 5, 4, 1, 2, 26, 2:

Find

a) The median = ...

b) The mean = ...

c) The mode = ...

d) The range = ...

e) The outlier = ...

(7) If Ali saves 17.50 L.E.,15.75 L.E, 29.75 L.E. from her salary. Find the mean of Ali savings.

....

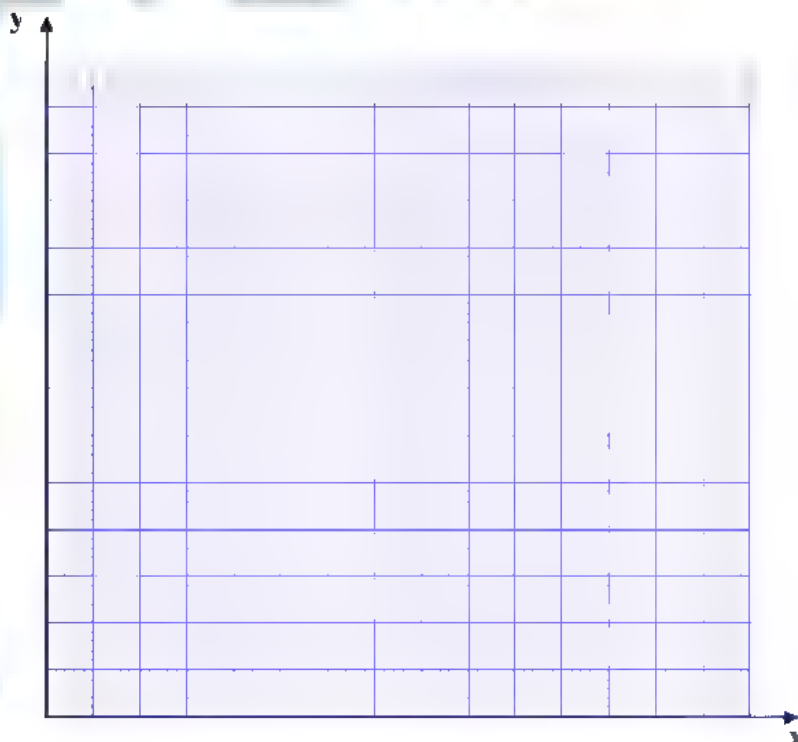...

(8) Ahmed runs 4 km on Sunday, 3 km on Monday, 5 km on Tuesday and 4 km on Friday. Find the mean of distances covered by Ahmed.

....

....

(9) The following table shows the daily wages of 50 workers of company.

Sets	Frequency
120-129	8
130-139	10
140-149	16
150-159	12
160-169	4

Answers

Part 1

From: Unit 1, Lesson 1

To: Unit 3, Lesson 3

Final Revision

1 Choose the correct answer

(1) In the equation: $378 \div 25 = 15$ R3 , the dividend is ....

(A) **378**   (B) 25   (C) 15   (D) 3

(2) In the equation: $544 \div 12 = 45$ R4 , the divisor is ....

(A) 544   (B) **12**   (C) 45   (D) 4

(3) In the equation: $5,314 \div 15 = 354$ R4 , the quotient is ....

(A) 5,314   (B) 15   (C) **354**   (D) 4

(4) In the equation: $1,860 \div 32 = 58$ R4 , the remainder is ....

(A) 1,860   (B) 32   (C) 58   (D) **4**

(5) In the equation: $2,150 \div 25 = 86$, the remainder is ....

(A) **0**   (B) 2,150   (C) 25   (D) 86

(6) $820 \div 24 = 34$ R ......

(A) 0   (B) 2   (C) **4**   (D) 6

(7) $6,280 \div 25 = $............

(A) $215\,R5$ (B) **$251\,R5$**   (C) 251   (D) $255\,R1$

(8) A school has 1,440 students which distributed between 24 classes equally. How many students are in each class?

(A) 40   (B) 50   (C) **60**   (D) 70

(9) Eslam saves 210 L.E weekly. How much did he save daily?

(A) 10   (B) 20   (C) **30**   (D) 40

(10) The smallest prime number is ....

Ⓐ 0 Ⓑ 1 **Ⓒ 2** Ⓓ 3

(11) The smallest odd prime number is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 **Ⓓ 3**

(12) The only even prime number is ....

Ⓐ 0 Ⓑ 1 **Ⓒ 2** Ⓓ 3

(13) The common factor of all numbers is ....

Ⓐ 0 **Ⓑ 1** Ⓒ 2 Ⓓ 3

(14) The common multiple of all numbers is ....

Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ 3

(15) which of the following is a prime number?

Ⓐ 20 Ⓑ 15 **Ⓒ 7** Ⓓ 9

(16) which of the following is not a prime number?

Ⓐ 2 Ⓑ 5 Ⓒ 7 **Ⓓ 9**

(17) The G.C.F of 3 and 5 is ....

Ⓐ 1 Ⓑ 3 Ⓒ 5 Ⓓ 15

(18) The L.C.M of 3 and 5 is ....

Ⓐ 1 Ⓑ 3 Ⓒ 5 **Ⓓ 15**

(19) The G.C.F of 6 and 12 is ....

Ⓐ 1 **Ⓑ 6** Ⓒ 12 Ⓓ 72

(20) The L.C.M of 6 and 12 is ....

Ⓐ 1 Ⓑ 6 **Ⓒ 12** Ⓓ 72

(21) The G.C.F of 10 and 15 is ....

(A) 10   (B) 15   **(C) 5**   (D) 30

(22) The L.C.M of 10 and 15 is ....

(A) 10   (B) 15   (C) 5   **(D) 30**

(23) In the opposite Venn diagram, the G.C.F is ....

(A) 1   **(B) 2**

(C) 10   (D) 30

(24) In the opposite Venn diagram, the L.C.M is ....

(A) 1   (B) 2

(C) 10   **(D) 30**
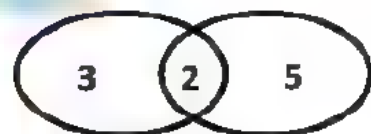
(25) In the opposite Venn diagram, the G.C.F is ....

(A) 1   (B) 2

(C) 7   (D) 14

(26) In the opposite Venn diagram, the L.C.M is ....

(A) 1   (B) 2

(C) 7   **(D) 14**

(27) from the opposite Venn diagram G.C.F = ...

(A) 6   (B) 210

(C) 42   (D) 30
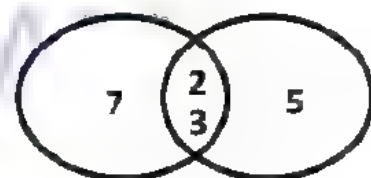
(28) from the opposite Venn diagram L.C.M = ...

(A) 6   **(B) 210**

(C) 42   (D) 30

(29) the G.C.F of two relatively prime numbers is ....

Ⓐ 0   **Ⓑ 1**   Ⓒ 2   Ⓓ 3

(30) which of the following are relatively prime numbers? ....

Ⓐ 2 *and* 10   **Ⓑ 4 *and* 9**   Ⓒ 4 *and* 6   Ⓓ 8 *and* 6

(31) $35 + 42 = \underline{\quad} (5 + 6)$

Ⓐ 35   Ⓑ 30   Ⓒ 6   **Ⓓ 7**

(32) $16 + 24 = 8 (2 + \underline{\quad})$

Ⓐ 24   Ⓑ 16   Ⓒ 2   **Ⓓ 3**

(33) $8 + 24 = 8 (\underline{\quad} + 3)$

Ⓐ 1   Ⓑ 2   Ⓒ 3   Ⓓ 24

(34) $10 + 45 = 5 (\underline{\quad} + \underline{\quad})$

Ⓐ 10, 40   Ⓑ 5, 40   Ⓒ 9, 5   **Ⓓ 2, 9**

(35) $\dfrac{2}{5} + \dfrac{3}{10} = \cdots$

Ⓐ $\dfrac{5}{15}$ **Ⓑ $\dfrac{7}{10}$**   Ⓒ $\dfrac{5}{10}$ Ⓓ $\dfrac{1}{2}$

(36) $\dfrac{3}{4} - \dfrac{5}{8} = \cdots$

Ⓐ $\dfrac{1}{4}$ **Ⓑ $\dfrac{1}{8}$**   Ⓒ $\dfrac{3}{8}$ Ⓓ $\dfrac{5}{8}$

(37) $5\dfrac{1}{2} + 3\dfrac{1}{5} = \cdots$

Ⓐ $8\dfrac{2}{7}$ **Ⓑ $8\dfrac{7}{10}$**   Ⓒ $8\dfrac{1}{2}$ Ⓓ $8\dfrac{2}{5}$

(38) $2\dfrac{1}{4} - 1\dfrac{1}{2} = \cdots$

Ⓐ $1\dfrac{1}{2}$ **Ⓑ $\dfrac{3}{4}$**   Ⓒ $1\dfrac{3}{4}$ Ⓓ $\dfrac{4}{3}$

(39) which is an integer? ....

(A) -0.2 (B) $\frac{1}{2}$ (C) **-10** (D) $3\frac{1}{2}$

(40) which of the following numbers is an integer?

(A) $-\frac{24}{5}$ (B) $\frac{4}{8}$ (C) **$\frac{15}{5}$** (D) 3.2

(41) the smallest counting number is ....

(A) 0 (B) **1** (C) -1 (D) -10

(42) the smallest natural number is ....

(A) **0** (B) 1 (C) -1 (D) -10

(43) the greatest negative integer is ....

(A) -2 (B) **-1** (C) 0 (D) $-[-1]$

(44) the greatest number from the following is ....

(A) -2 (B) **-1** (C) -10 (D) -11

(45) the greatest non-positive integer is ....

(A) 1 (B) **0** (C) -1 (D) 2

(46) the smallest non-negative integer is ....

(A) 1 (B) **0** (C) -1 (D) $-[-1]$

(47) The number .... is neither positive nor negative.

(A) 1 (B) **0** (C) -1 (D) 2

(48) the integer which just next -5 is ....

(A) -3 (B) **-4** (C) -5 (D) -6

(49) the integer which just before -1 is ....

(A) **-2** (B) 0 (C) 1 (D) 2

(50) Each number in the set of integers is called ....

Ⓐ **element**　　　　　　　Ⓑ set

Ⓒ subset　　　　　　　　Ⓓ not subset

(51) the additive inverse of -2 is ....

Ⓐ −2　　　　Ⓑ **2**　　　　Ⓒ 0　　　　Ⓓ 4

(52) the opposite of 5 is ....

Ⓐ 5　　　　Ⓑ **−5**　　　　Ⓒ 0　　　　Ⓓ −7

(53) the opposite of - 5 is ....

Ⓐ **5**　　　　Ⓑ −5　　　　Ⓒ 0　　　　Ⓓ −7

(54) the opposite of $-[-5]$ is ....

Ⓐ 5　　　　Ⓑ **−5**　　　　Ⓒ 0　　　　Ⓓ −7

(55) the opposite of the opposite of 5 is ....

Ⓐ −5　　　　Ⓑ **$-[-5]$**　　　　Ⓒ 0　　　　Ⓓ 10

(56) in the opposite number line, the integer A is ....

Ⓐ −1　　　　　　　　Ⓑ −2

Ⓒ −3　　　　　　　　Ⓓ **−4**

(57) which of the following is nearest to zero? ....

Ⓐ −4　　　　Ⓑ 4　　　　Ⓒ −3　　　　Ⓓ **2**

(58) −5 ☐ **3**

Ⓐ >　　　　Ⓑ **<**　　　　Ⓒ =

(59) −2 ☐ **− 7**

Ⓐ **>**　　　　Ⓑ <　　　　Ⓒ =

(60) −3 ☐ **$-[-3]$**

Ⓐ >　　　　Ⓑ **<**　　　　Ⓒ =

(61) All the following numbers are rational except ………….

Ⓐ 0 　　　Ⓑ 5 　　　Ⓒ $\frac{1}{7}$ 　　　**Ⓓ $\frac{4}{0}$**

(62) All the following numbers are rational except ………….

Ⓐ 0 　　　Ⓑ $\frac{2}{7}$ 　　　Ⓒ $\frac{1}{7}$ 　　　**Ⓓ $\frac{4}{2-2}$**

(63) the best subset of the number 1 is ………….

Ⓐ counting number 　　　Ⓑ natural number

Ⓒ integer 　　　Ⓓ rational number

(64) the best subset of the number 0 is ………….

Ⓐ counting number 　　　**Ⓑ natural number**

Ⓒ integer 　　　Ⓓ rational number

(65) The best subset of the number -5 is ………….

Ⓐ counting number 　　　Ⓑ natural number

Ⓒ integer 　　　Ⓓ rational number

(66) The best subset of the number 4.854 is ………….

Ⓐ counting number 　　　Ⓑ natural number

Ⓒ integer 　　　**Ⓓ rational number**

(67) - 4 …………. set of counting numbers.

Ⓐ belongs to 　　　**Ⓑ does not belong to**

Ⓒ is a subset of 　　　Ⓓ is not a subset of

(68) the opposite of - 5 …………. set of natural numbers.

Ⓐ belongs to 　　　Ⓑ does not belong to

Ⓒ is a subset of 　　　Ⓓ is not a subset of

(69) – 2.5 .... set of integers.

Ⓐ belongs to   **Ⓑ does not belong to**

Ⓒ is a subset of   Ⓓ is not a subset of

(70) set of integers .... set of rational numbers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   Ⓓ is not a subset of

(71) set of natural .... set of counting numbers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   **Ⓓ is not a subset of**

(72) set of counting .... set of integers.

Ⓐ belongs to   Ⓑ does not belong to

Ⓒ is a subset of   Ⓓ is not a subset of

(73) the number 5 in the form $\frac{a}{b}$ is ....

Ⓐ $\frac{1}{5}$ **Ⓑ $\frac{5}{1}$**   Ⓒ $-\frac{15}{10}$ Ⓓ 0.5

(74) the number $2\frac{3}{5}$ in the form $\frac{a}{b}$ is ....

Ⓐ $\frac{23}{5}$ Ⓑ $\frac{5}{0}$ **Ⓒ $\frac{13}{5}$**   Ⓓ 253

(75) the number -1.5 in the form $\frac{a}{b}$ is ....

Ⓐ $-\frac{1}{5}$ Ⓑ $-\frac{5}{1}$ **Ⓒ $-\frac{15}{10}$**   Ⓓ $-5\frac{1}{10}$

(76) $\frac{3}{5}$ ☐ $\frac{2}{7}$

Ⓐ >   Ⓑ <   Ⓒ =

(77) $-\frac{1}{4}$ ☐ $-\frac{2}{9}$

Ⓐ >   **Ⓑ <**   Ⓒ =

(78) 0.7 ☐ 0.65

(A) **>**   (B) <   (C) =

(79) $\frac{2}{8}$ ☐ 0.5

(A) >   (B) **<**   (C) =

(80) the greatest number from the following is ....

(A) **$\frac{1}{2}$**   (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{1}{12}$

(81) the smallest number from the following is ....

(A) **0.11**   (B) 0.3   (C) $\frac{1}{2}$ (D) 0.15

(82) .... is lying between 3.1 and 3.2

(A) **3.15**   (B) 3.21   (C) 3.20   (D) 3.22

(83) the absolute values of 5 is ....

(A) −5   (B) **5**   (C) 0.5   (D) 0.125

(84) the absolute values of $-\frac{1}{2}$ is ....

(A) $-\frac{1}{2}$ (B) **$\frac{1}{2}$**   (C) $-\frac{3}{2}$ (D) $3\frac{1}{2}$

(85) the opposite of $\left|-\frac{1}{2}\right|$ is ....

(A) **$-\frac{1}{2}$**   (B) $\frac{1}{2}$ (C) $-\frac{3}{2}$ (D) $3\frac{1}{2}$

(86) the absolute value of the opposites of $-2\frac{1}{5}$ is ....

(A) $4\frac{2}{5}$ (B) 0   (C) $-2\frac{1}{5}$ (D) **$2\frac{1}{5}$**

(87) the absolute values of opposites are ....

(A) **equal**   (B) different   (C) negative   (D) other

(88) $|2| \times |-2| = $ ....

Ⓐ 0   **Ⓑ 4**   Ⓒ −4   Ⓓ −1

(89) $|-10| + |-2| \ \square \ |20| - |-10|$

Ⓐ >   Ⓑ <   Ⓒ =

(56) $|-7| > $ ....

Ⓐ $|-6|$ Ⓑ $|-7|$ Ⓒ $|-8|$ Ⓓ $|-9|$

(90) which of the following is an algebraic expression? ....

Ⓐ $44 - 3 + 4$ Ⓑ $3 + 7 - 0$

Ⓒ $15a - 32$ Ⓓ $2(3 + 14)$

(91) which of the following is a numeric expression? ....

Ⓐ $46z - 25$ Ⓑ $3x + 7 - 0$

Ⓒ $15a + 2x$ **Ⓓ $2(3 + 14)$**

(92) The constant in the expression $2x + 5$ is ....

Ⓐ 2   Ⓑ $2x$ Ⓒ $2x + 5$ **Ⓓ 5**

(93) The coefficient in the expression $2x + 5$ is ....

Ⓐ 2   Ⓑ $2x$ Ⓒ $2x + 5$ Ⓓ 5

(94) The constant in the algebraic expression $5 + 3y + 2x + 1$ are ....

Ⓐ 5,3,2,1   Ⓑ 3,2   Ⓒ 3,2,1   **Ⓓ 5,1**

(95) The coefficients in the algebraic expression $5 + 3y + 2x + 1$ are ....

Ⓐ 5,3,2,1   **Ⓑ 3,2**   Ⓒ 3,2,1   Ⓓ 5,1

(96) Which of the following are like terms?

Ⓐ 25,52   Ⓑ $2b, 2c$ Ⓒ ab, aC Ⓓ n, m

(97) The number of terms of the expression: $5 - 2m - 3m + 4$ is ... terms.

(A) 5 (B) -2 (C) -3 **(D) 4**

(98) the number of like terms in the expression $3 + 2x + 5$ is ....

(A) 1 **(B) 2** (C) 3 (D) 4

(99) $2 + 3[\underline{\hspace{2cm}}] + 5$, complete to get a numeric expression.

(A) a (B) k **(C) $30 : 5$** (D) $b + c$

(100) we subtract 5 from the number x, we get ....

(A) $5x$ (B) $5 - x$ **(C) $x - 5$** (D) $x + 5$

(101) Three times a number less two is ....

(A) $3x + 2$ **(B) $3x - 2$** (C) $2x3x$ (D) $\frac{3x}{2}$

(102) Three times a number less than two is ....

(A) $2 + 3x$ (B) $3x - 2$ (C) $2x3x$ **(D) $2 - 3x$**

(103) Subtracting 3 from double a number ....

(A) $n - 3$ **(B) $2n - 3$** (C) $3n + 2$ (D) $5n$

(104) Twice the difference of a number and 5 is ....

(A) $2y + 5$ (B) $2y - 5$ (C) $2(y + 5)$ **(D) $2(y - 5)$**

(105) The algebraic expression "Twelve less than three groups of y" is. -----

(A) $12 - 3y$ **(B) $3y - 12$** (C) $y - 12$ (D) $12 - y$

(106) Laila saved n L.E. and her mother gave her 5 L.E., she will have ... L.E.

(A) $n - 5$ **(B) $n + 5$** (C) $5n$ (D) $5 - n$

2 complete

(1) $8,529 \div 25 = 341R$ **4**

(2) The divisor in the equation: $16,692 \div 52 = 321$ is....**52**

(3) The smallest prime number is ...**2**......

(4) The smallest odd prime number is .....**3**......

(5) The only even prime number is ...**2**.....

(6) The common factor of all numbers is .....**1**....

(7) The common multiple of all numbers is .....**0**......

(8) The G.C.F of 5 and 7 is ......**1**....

(9) The L.C.M of 5 and 7 is ....**35**...

(10) The G.C.F of 4 and 8 is ....**4**...

(11) The L.C.M of 4 and 8 is .....**8**....

(12) The G.C.F of 6 and 8 is ....**2**....

(13) In the opposite Venn diagram

, the G.C.F is .....**2**....

(14) In the opposite Venn diagram

, the L.C.M is ..**60**....

(15) In the opposite Venn diagram

, the G.C.F is …….**1**……

(16) In the opposite Venn diagram, the

, the L.C.M is …..**6**….

(17) The G.C.F of two relatively prime numbers is ……**1**……

(18) $8(5 + 4) = 40 + \underline{\textbf{32}}$

(19) $18 + 9 = 9 \left(\underline{\textbf{2}} + \underline{\textbf{1}} \right)$

(20) $5 \left(2 + \underline{\textbf{7}} \right) = 10 + 35$

(21) $9 (1 + 2) = 9 + \underline{\textbf{18}}$

(22) $\underline{\textbf{3}} [5 + 2] = 15 + 6$

(23) $\dfrac{1}{5} + \dfrac{1}{3} = \dfrac{\textbf{8}}{\textbf{15}}$

(24) $\dfrac{3}{7} + \dfrac{1}{6} = \dfrac{\textbf{25}}{\textbf{42}}$

(25) $\dfrac{1}{4} + \dfrac{1}{12} = \dfrac{\textbf{4} \div \textbf{4}}{\textbf{12} \div \textbf{4}} = \dfrac{\textbf{1}}{\textbf{3}}$

(26) $\dfrac{5}{6} - \dfrac{7}{10} = \dfrac{\textbf{4} \div \textbf{2}}{\textbf{30} \div \textbf{2}} = \dfrac{\textbf{2}}{\textbf{15}}$

(27) $\dfrac{5}{6} - \dfrac{3}{8} = \dfrac{\textbf{11}}{\textbf{24}}$

(28) $10 \dfrac{1}{2} - 5 \dfrac{1}{3} = ….\textbf{5}.\dfrac{\textbf{1}}{\textbf{6}}$

(29) Each number in the set of integers is called ...*element*

(30) The smallest counting number is ...**1**...

(31) The smallest natural number is ......**0**...

(32) The smallest positive integer number is ...**1**...

(33) The greatest negative integer is ...**−1**...

(34) The greatest non-positive integer is ...**0**...

(35) The smallest non-negative integer is ...**0**...

(36) The number ...**0**... is neither positive nor negative.

(37) The integer which just next − 1 is ...**0**...

(38) The integer which just before − 1 is ...**−2**...

(39) The integers between -3 and 2 are ...**−2 < −1 < 0 < 1**

(40) The number of integers between -3 and 2 is ...**4 Integers**

(41) The opposite of 3 is ...**−3**...

(42) The opposite of -3 is ...**3**...

(43) The opposite of zero is ...**0**...

(44) The distance between the opposite of 4 and 0 on the number line equals ...**4**... units.

(45) The distance between the number 2 and its opposite on the number line equals ...**4**... units.

(46) The best subset of the number 25 is ...*Counting*...

(47) The best subset of the number 0 is ...*Natural*...

(48) The best subset of the number – 1 is ...*Integers*...

(49) The best subset of the number – 1.5 is ...*Rational*...

(50) $|-7| = $ ...*7*...

(51) $| 0 | = $ ...*O*...

(52) $|-3| + | 2 | = $ ...*5*...

(53) $|-3| \times |-5| = $ *15*

(54) $|-2| \times |0| = $ ...*O*...

(55) positive integer [*>*] negative integer

(56) zero [*>*] negative integer

(57) zero [*<*] positive integer

(58) 3 [*>*] – 7

(59) – 12 [*<*] $\sqrt{-4}$

(60) 2.5 [*>*] 2.47

(61) The additive invers of 5 [*=*] – 5

(62) $|-3|$ [*>*] $|-1|$

(63) $|-1|$ [*=*] $-[-1]$

(64) $|-5|$ [*>*] 2

(65) $|-2.71|$ [*>*] 2.7

(66) $|-10| + |-2|$ [*>*] $|20| - |-10|$

(67) The opposite of $\left|-\frac{1}{2}\right|$ is ...$-\frac{1}{2}$...

(68) The constant in the expression $3y + 2x - 5$ is .... -5

(69) The constant in the expression $2x + y$ is ...... none

(70) The coefficient in the expression $3y + 2x - 5$ is ...... $3, 6, 2$

(71) The coefficient in the expression $1.5 + 4 - 5$ is ...... none

(72) The verbal expression from "$x + 2$" is ...... x increased by 2

(73) The verbal expression from "$y - 5$" is ...... x decreased by 5

(74) The verbal expression from "$5x$" is .... 5 times x

(75) The verbal expression from "$4 - 3n$" is ...... 4 minus 3 times n

(76) The algebraic expression for "a number less 7" is ...... $x - 7$

(77) The algebraic expression for "a number less than 7" is ...... $7 - x$

(78) The algebraic expression for " Subtract 3 from the number y "is ...... $y - 3$

(79) The algebraic expression for

"Four times the sum of a number and seven" is ...... $4(x + 7)$

(80) The algebraic expression for

"Add 5 to the doubte of the number x" is ...... $5 + 2x$

3 Answer the following questions

(1) Using the following Venn diagram, complete

a- The two numbers represented in the Venn diagram are ---**45**--- and ---**35**---

b- The G.C.F of the two numbers is -----------**5**---------------

c- The L.C.M of the two numbers is --------**315**-------------

d- Are the two numbers relatively prime numbers? (Yes – **No**)

---

(2) Using the following Venn diagram, complete

a- The two numbers represented in the Venn diagram are ---**7**--- and ---**3**---

b- The G.C.F of the two numbers is --------------**1**---------------

c- The L.C.M of the two numbers is ----------**21**-------------

d- Are the two numbers relatively prime numbers? (**Yes** – No)

---

(3) Using the following Venn diagram, complete

x = ...**12**...

y = ...**42**...

The GCF = ...**6**...

The LCM = ...**84**...

The expression = ..**6**.. (..**2**.. + ..**7**...)

---
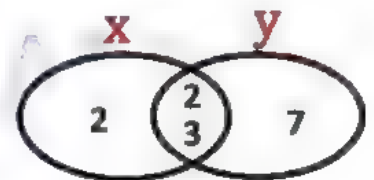
(4) Use Venn diagram to find G.C.F and L.C.M of:

15 and 10

$15 = 3 \times 5$

$10 = \qquad 5 \times 2$

15 — 10
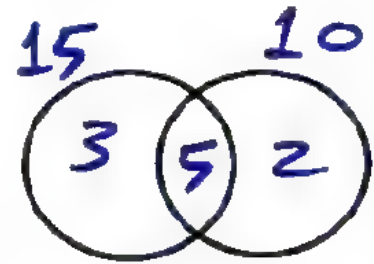
3 (5) 2

Gcf = 5

LCM = 30

---

(5) Order the given set of numbers from least to greatest.

$$2.1, 1.4, -3\frac{1}{4}, -1\frac{7}{8}, 2\frac{1}{2}$$

$$-3\frac{1}{4} < -1\frac{7}{8} < 1.4 < 2.1 < 2\frac{1}{2}$$

---

(6) Ahmed has 10 L.E. in her money box, he will save 5 L.E. daily.

a- What algebraic expression represent this situation?

$10 + 5x$

b- How much money in the money box after 3 days?

$10 + 5 \times 3 = 25$ L.E.

(7) Find two rational numbers lies between: $\frac{3}{4}$ and $\frac{4}{5}$

$$\frac{15}{20} < \frac{16}{20} \qquad \times 10 \qquad \text{Two Rational}$$

$$\frac{150}{200} < \frac{160}{200} \qquad \rightsquigarrow \qquad \frac{151}{200} < \frac{155}{200}$$

(8) Find two rational numbers lies between: -1.2 and -1.3

$$-1.20 < -1.30$$

$$\Rightarrow -1.21 < -1.25$$

(9) Represent the numbers on the number line.

$$-3, 3, 5, 0, -2, -1$$

(10) A factory produces 1,645 pieces of cloth weekly.

How many pieces did the factory produce daily?

$$1645 \div 7 = 235 \text{ Pieces}$$

Answers

Part 2

From: Unit 3, Lesson 4

To: Unit 5

Final Revision

1 Choose the correct answer.

(1) In 2^3: the base is ………

Ⓐ **2** Ⓑ 3 Ⓒ 2^3 Ⓓ 8

(2) In 2^3: the exponent is ………

Ⓐ 2 Ⓑ **3** Ⓒ 2^3 Ⓓ 8

(3) In 7^4: 4 is called ………

Ⓐ exponent Ⓑ power Ⓒ index Ⓓ **all of them**

(4) In ……… 4 is called the base and 2 is called the exponent.

Ⓐ 2 Ⓑ **4^2** Ⓒ 8 Ⓓ 16

(5) If the base is 5 and the exponent is 3, then the exponential form of the number is ………

Ⓐ 15 Ⓑ 5^2 Ⓒ 3^5 Ⓓ **5^3**

(6) 3 to the power of 4 = ………

Ⓐ 3 Ⓑ 4 Ⓒ 12 Ⓓ **81**

(7) $2 \times 2 \times 2 =$ ………

Ⓐ 2^1 Ⓑ 2^2 Ⓒ **2^3** Ⓓ 2^4

(8) $5^4 =$ ………

Ⓐ $5 \times 5 \times 5$ Ⓑ **$5 \times 5 \times 5 \times 5$** Ⓒ $4 \times 4 \times 4$ Ⓓ 5×4

(9) $y \times y =$ ………

Ⓐ y Ⓑ 2y Ⓒ **y^2** Ⓓ 0

(10) $1^{100} =$ ………

Ⓐ **1** Ⓑ 10 Ⓒ 100 Ⓓ 1000

(11) $2^1 = $ ....

   Ⓐ 0   Ⓑ 1   **Ⓒ 2**   Ⓓ 3

(12) $5^{.....} = 5$

   Ⓐ 0   **Ⓑ 1**   Ⓒ 2   Ⓓ 3

(13) $3^0 = $ ....

   Ⓐ 0   **Ⓑ 1**   Ⓒ 2   Ⓓ 3

(14) $y^0 = $ ....

   Ⓐ 0   **Ⓑ 1**   Ⓒ 2   Ⓓ 3

(15) $9^{.....} = 1$

   Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(16) Squared 7 = ...

   Ⓐ 7   Ⓑ 14   **Ⓒ 49**   Ⓓ 70

(17) Cubed 2 = ...

   Ⓐ 2   Ⓑ 4   **Ⓒ 8**   Ⓓ 16

(18) Two cubed added to two squared equals ....

   Ⓐ $2^2 + 3$ **Ⓑ $2^3 + 2^2$**   Ⓒ $2^3 - 2^2$ Ⓓ 0

(19) The first operation you perform in the expression $5 \times (3 - 2) + 7$ is ....

   Ⓐ add   **Ⓑ sbtract**   Ⓒ multiply   Ⓓ exponent

(20) The value of the expression $2m - 4$ for $m = 3$ is ....

   Ⓐ 0   **Ⓑ 2**   Ⓒ 3   Ⓓ 4

(21) The value of the expression $3n - 2$ for $n = 7$ is ....

   Ⓐ 14   **Ⓑ 19**   Ⓒ 21   Ⓓ 23

(22) The value of the expression $x + 3^2$ for $x = 1$ is ………

Ⓐ 7   Ⓑ 16   **Ⓒ 10**   Ⓓ 12

(23) Which of the following expression has the same value of $3x + 5$ at $x = 3$

Ⓐ $3(x + 1) + 5$ Ⓑ $4x + 1$ Ⓒ $5x + 3$ **Ⓓ $x^2 + 5$**

(24) If $x + 2 = 9$, then $x =$ ………

Ⓐ 2   Ⓑ 5   **Ⓒ 7**   Ⓓ 9

(25) If $y + 3 = 5$, then $4y =$ ………

Ⓐ 2   Ⓑ 4   **Ⓒ 8**   Ⓓ 22

(26) If $k + 1 = 5$, then twice $k =$ ………

Ⓐ 1   Ⓑ 4   Ⓒ 5   **Ⓓ 8**

(27) If $x + 4.5 = 5.7$, then $x =$ ………

Ⓐ 1.2   Ⓑ 1.3   Ⓒ 9.2   Ⓓ 10.2

(28) If $y - 3 = 10$, then $y =$ ………

Ⓐ 12   **Ⓑ 13**   Ⓒ 14   Ⓓ 15

(29) If $m - 3^2 = 1$, then $m =$ ………

Ⓐ 10   Ⓑ 3   Ⓒ 1   Ⓓ 6

(30) If $z \times 6 = 48$, then $z =$ ………

Ⓐ 6   Ⓑ 7   **Ⓒ 8**   Ⓓ 48

(31) If $5y = 35$, then $y =$ ………

Ⓐ 6   **Ⓑ 7**   Ⓒ 8   Ⓓ 35

(32) If $5a = 0$, then $a =$ ………

Ⓐ 0   Ⓑ 1   Ⓒ 2   Ⓓ 3

(33) The product of a number x and 6 is 42, then x = ...

Ⓐ 6　　　　　　Ⓑ **7**　　　　　Ⓒ 36　　　　　Ⓓ 48

(34) If x + x = 4, then x = ...

Ⓐ 4　　　　　Ⓑ $4x$　　　　　Ⓒ 8　　　　　Ⓓ **2**

(35) If m + m + m = 18, then m = ...

Ⓐ 3y　　　　　Ⓑ 18　　　　　Ⓒ **6**　　　　　Ⓓ 5

(36) If a ÷ 2 = 8, then a = ...

Ⓐ 2　　　　　Ⓑ 4　　　　　Ⓒ **16**　　　　　Ⓓ 8

(37) If a ÷ 2 = 8, then $\frac{1}{4}$ a = ...

Ⓐ 2　　　　　Ⓑ **4**　　　　　Ⓒ 16　　　　　Ⓓ 8

(38) If 36 ÷ y = 9, then y = ...

Ⓐ 2　　　　　Ⓑ **4**　　　　　Ⓒ 9　　　　　Ⓓ 36

(39) If 7 − y = 2, then y = ...

Ⓐ 2　　　　　Ⓑ 3　　　　　Ⓒ 4　　　　　Ⓓ **5**

(40) The number of solutions of the equation: x + 1 = 5 is ....

Ⓐ **1**　　　　　Ⓑ 4　　　　　Ⓒ 5　　　　　Ⓓ infinite

(41) The number of solutions of the inequality: x <1 is ....

Ⓐ 1　　　　　Ⓑ 4　　　　　Ⓒ 5　　　　　Ⓓ **infinite**

(42) Which of the following is a solution of the inequality: m ≥ −1 is ....

Ⓐ −2　　　　　Ⓑ −3　　　　　Ⓒ −4　　　　　Ⓓ **0**

(43) Which of the following is a solution of the inequality: x < −5 is ....

Ⓐ −6　　　　　Ⓑ −7　　　　　Ⓒ −8　　　　　Ⓓ **all of them**

(44) .... is a solution of x < −2

Ⓐ −1   **Ⓑ −6**   Ⓒ 2   Ⓓ 0

(45) All the following are solutions of the inequality: x > −3 except ....

Ⓐ −2   Ⓑ 5   Ⓒ 0   **Ⓓ −5**

(46) All the following are solutions of the inequality: m < −1 except ....

Ⓐ −5   Ⓑ −4   Ⓒ −3   **Ⓓ −1**

(47) The smallest solutions of the inequality: x ≥ 2 is ....

Ⓐ 5   Ⓑ 4   Ⓒ 3   **Ⓓ 2**

(48) The inequality that represents the following graph is ....

Ⓐ x > −1   **Ⓑ x ≥ −1**   Ⓒ x < −1   Ⓓ x ≤ −1

(49) The inequality that represents the following graph is ....

Ⓐ m > 3   Ⓑ m ≥ 3   Ⓒ m < 3   **Ⓓ m ≤ 3**

(50) Ahmed can read more than 5 books monthly. Which inequality represent the number of books that Ahmed read monthly?

Ⓐ x > 5   Ⓑ x ≥ 5   Ⓒ x < 5   Ⓓ x ≤ 5

(51) Ahmed can read at least 5 books monthly. Which inequality represent the number of books that Ahmed read monthly?

Ⓐ x > 5   **Ⓑ x ≥ 5**   Ⓒ x < 5   Ⓓ x ≤ 5

(52) Mohamed has 20 L.E. his friend Ali has less money than Mohamed, then Ali may has .... L.E

Ⓐ 52   Ⓑ 44   Ⓒ 30   **Ⓓ 12**

(53) Which of the following is an equation?

Ⓐ $20 + 2x$ Ⓑ 2 times y

Ⓒ $3 + a$ Ⓓ $2 + 3y = x$

(54) In the equation: $x = 4y + 3$ the dependent variable is ....

Ⓐ x Ⓑ y Ⓒ 3 Ⓓ 4

(55) In the equation: $x = 4y + 3$ the independent variable is ....

Ⓐ x Ⓑ y Ⓒ 3 Ⓓ 4

(56) The algebraic equation of " 8 more than s equals t " is ....

Ⓐ $8s = t$ Ⓑ $8t = s$

Ⓒ $8 + s = t$ Ⓓ $8 + t = s$

(57) The algebraic equation of " m equals the product of n and 3 " is ....

Ⓐ $m = 3n$ Ⓑ $m = 3 + n$

Ⓒ $n = 3m$ Ⓓ $n = 3 + m$

(58) The algebraic equation of " 4 times c is added to 7 equals k " is ....

Ⓐ $4c + 4 = k$ Ⓑ $7k + 4 = c$

Ⓒ $4c + 7 = k$ Ⓓ $4k + 7 = c$

(59) The algebraic equation of " m equals twice n increased by 5 " is ....

Ⓐ $m = n + 5$ Ⓑ $m = 2n$

Ⓒ $m = 2n + 5$ Ⓓ $m = n$

(60) The word phrase for the equation " $x = 4 + y$ " is ....

Ⓐ x equals 4 more than y.   Ⓑ x equals 4 times y.

Ⓒ x equals 4 less than y.   Ⓓ x equals 4 decreased by y.

(61) The word phrase for the equation " m = 2n " is ....

Ⓐ m equals 2 more than n.   **Ⓑ m equals 2 times n.**

Ⓒ m equals 2 less than n.   Ⓓ m equals 2 decreased by n.

(62) In the equation: $y = 2 + x$, if $x = 3$, then $y =$ ....

Ⓐ 2   Ⓑ 3   Ⓒ 4   **Ⓓ 5**

(63) In the equation: $y = 3x$, if $x = 5.1$, then $y =$ ....

Ⓐ 8.1   Ⓑ 53.1   **Ⓒ 15.3**   Ⓓ 18.3

(64) In the equation: $y = 2x$, if $y = 8$, then $x =$ ....

Ⓐ 2   **Ⓑ 4**   Ⓒ 6   Ⓓ 8

(65) In the equation: $y = x + 1$, if the input is 1, then the output is ....

Ⓐ 2   Ⓑ 4   Ⓒ 6   Ⓓ 8

(66) In the equation: $y = x - 6$, if the output is 2, then the input is ....

Ⓐ 2   Ⓑ 4   Ⓒ 6   **Ⓓ 8**

(67) The ordered pair which satisfies the equation: $y = x + 1$ is ....

Ⓐ (0 , 2)   Ⓑ (1 , 1)   **Ⓒ (1 , 2)**   Ⓓ (2 , 1)

(68) The ordered pair which satisfies the equation: $y = 2x$ is ....

Ⓐ (2 , 5)   Ⓑ (3 , 0)   Ⓒ (0 , 1)   **Ⓓ (0 , 0)**

(69) The ordered pair (2, a) satisfies the equation: $y = 2x + 1$, then a = ...

Ⓐ 2   Ⓑ 3   Ⓒ 4   **Ⓓ 5**

(70) The ordered pair (2, b) satisfies the equation: $y = x^2 - 2$, then b = ...

Ⓐ 2   Ⓑ 3   Ⓒ 4   Ⓓ 5

2 complete

(1) In 3^5: the base is ..**3**.. And the exponent ...**5**...

(2) In ..5^3.. 5 is called the base and 3 is called the exponent.

(3) In 4^2: 4 is called ..**Base**.. and 2 is called **Exponent**

(4) If the base is 7 and the exponent is 5, then the exponential form of the number is ...7^5...

(5) Area of the square whose side length 5 cm in the exponential form is ..5^2.. cm^2

(6) Volume of the cube whose edge 4 cm in the exponential form is ..4^3.. cm^3

(7) $3^4 =$ ..**81**..

(8) $2 \times 2 \times 2 \times 2 =$ ..2^4..

(9) $y \times y \times y = y$ ..**3**..

(10) 5 squared = ..5^2.. = **25**

(11) 2 cubed = ..2^3.. = **8**

(12) The value of the expression $2m - 2^2$ for m = 2 is ..**Zero**..

(13) The value of the expression $9 + (p^2 - 3) \div 2$ for p = 5 is ..**20**..

(14) If x + 3 = 12, then x = ..**9**..

(15) If $x + \dfrac{1}{3} = 3$, then x = ..$2\dfrac{2}{3}$..

(16) If m − 3 = 7, then 2m = ..**20**..

(17) If 3y = 12, then 5y = ..**20**..

(18) If k ÷ 3 = 5, then k = ..**15**..

(19) If a ÷ 4 = 3, then 3a = ..**36**..

(20) If $\frac{y}{3}$ = 5, then y = **15**..

(21) 3y − 5 = 7, the y = ..**4**..

(22) 3x + 8 = 29, then x = ..**7**..

(23) The number of solutions of the equation: x + 1 = 5 is ..**1**.. Solution.

(24) The number of solutions of the inequality: x < 1 is ..**Infinite**

(25) The inequality that represents: all values "greater than -1" is **x > -1**

(26) The inequality that represents: all values "greater than or equal -1 "

　　　is ......**x ⩾ -1**

(27) The inequality that represents: all values "less than 2" is ..**x < 2**

(28) The inequality that represents: all values "less than or equal 2" is **x ⩽ 2**

(29) The inequality that represents: the set of counting numbers is .... **x > 0 or x ⩾ 1**

(30) The inequality that represents: the set of natural numbers is ..**x ⩾ 0**

(31) The inequality that represents: the set of positive integers is .... **x > 0 or x ⩾ 1**

(32) The inequality that represents: the set of negative integers is .... **x < 0 or x ⩽ -1**

(33) The inequality that represents: the set of non-positive integers is .... **x ⩽ 0**

(34) The inequality that represents: the set of non-negative integers is $x \geqslant 0$

(35) The inequality that represents: the following graph is ... $x \geqslant 0$ or $x > -1$
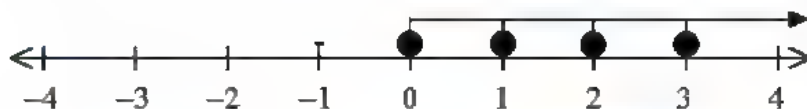
(36) In the equation: $y = x + 2$ the dependent variable is ... y

(37) In the equation: $3y - 6 = x$ the independent variable is ... y

(38) The algebraic equation of " m equals twice n increased by 25 " is .... $m = 2n + 25$

(39) The algebraic equation of " the product of 2 and y plus 22 equals x "

is ...... $2y + 22 = x$

(40) The word phrase for the equation " $y = 2x$ " is .... $y = 2$ times x

(41) The word phrase for the equation " $a + 5b = c$ " is .... a more than 5 times b equals c

(42) In the equation: $y = 2x + 5.2$, if $x = 2$, then $y = ...$ 9.2

(43) In the equation: $y = x + \dfrac{1}{3}$, if $x = 5$, then $y = ...$ $5\dfrac{1}{3}$

(44) In the equation: $y = x + 1$, if the input is 1, then the output is ... 2

(45) In the equation: $y = 3x$, if the output is 9, then the input is ... 3

(46) The ordered pair $(1, c)$ satisfies the equation: $y = 2x + 1$, then $c = ...$ 3

(47) $(4, ...6...)$ satisfies the equation: $y = \dfrac{1}{2}x + 4$

(48) Complete the following table according to the equation $y = 2x + 1$

X	0	1	2	3
y	1	3	5	7

(49) If the equation: $y = x + 3$ is represented by the table, then a = ...5...

X	1	2	3
y	4	a	6

(50) The equation which represents the table is ...$y = 2x$...

X	0	2	4	6
y	0	4	8	12

3 **Answer the following questions.**

1) Use the order of operations to simplify.

a. $(15 - 9) + 3 \times 4^2 \div 2$

30

b. $40 + 5(3^2 - 7) + 10$

60

2) Evaluate the expression: $5x^2 + 8 \div (6 - 4) \div 2$ at $x = 3$

47

3) Check the two expressions are equivalent or not.

$5x + 3$ and $3x + 5$

Not equivalent

If $x = 1$ *If $x = 2$*

$5 \times 1 + 3$ *$3 \times 1 + 5$*   *$5 \times 2 + 3 = 13$*

$5 + 3 = 8$ *$3 + 5 = 8$*   *$3 \times 2 + 5 = 11$*

4) Solve each of the following questions:

a) $5t = 20$

$t = 4$

b) $7 + c = 17.8$

$c = 10.8$

c) $2x + 3 = 15$

$2x = 12 ⟶ x = 6$

5) Represent the inequality $x \geq 1$ on the number line in the set of integers.
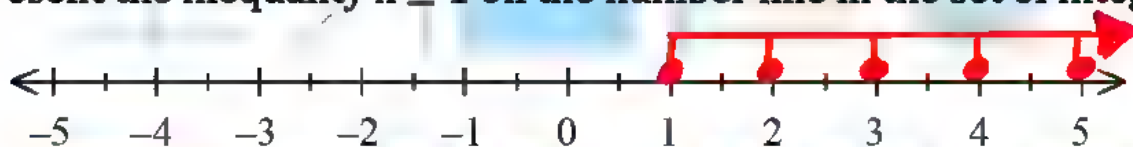
6) Write an equation use the variables x and y, where x is the independent,

If the rule is "multiply by 8 and add 3". The equation: $y = 8x + 3$

if x = 3, then y = 27

7) Complete the following table, then make the graph.

The equation: $y = 2x + 1$

X	0	1	2	3
y	1	3	5	7

Answers

Part 3

From: Unit 6

To: Unit 7

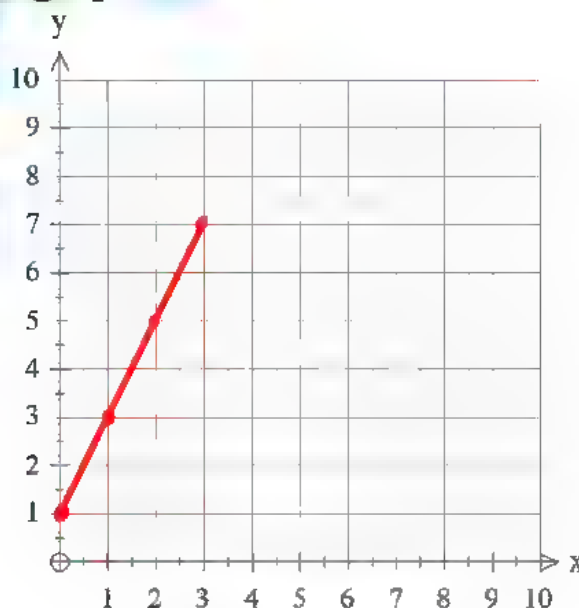## Final Revision

1 Choose the correct answer

(1) .... is a categorical data.

    Ⓐ date of birth   Ⓑ age   Ⓒ <u>Favorite sport</u>   Ⓓ weight

(2) .... is a numerical data.

    Ⓐ Your name   Ⓑ <u>age</u>   Ⓒ Favorite color   Ⓓ Favorite sport

(3) Your name is .... data.

    Ⓐ numerical   Ⓑ <u>categorical</u>   Ⓒ quantitative   Ⓓ otherwise

(4) Your age is .... data.

    Ⓐ <u>numerical</u>   Ⓑ categorical   Ⓒ descriptive   Ⓓ otherwise

(5) All the following data are numerical except ....

    Ⓐ height   Ⓑ age   Ⓒ <u>color</u>   Ⓓ weight

(6) All the following data are descriptive except ....

    Ⓐ name   Ⓑ sport   Ⓒ color   Ⓓ <u>age</u>

(7) The .... is the middle value of the data set.

    Ⓐ Mode   Ⓑ Mean   Ⓒ <u>Median</u>   Ⓓ Outlier

(8) The minimum of the values (4, 7, 8, 1, 3) is ....

    Ⓐ <u>1</u>   Ⓑ 3   Ⓒ 4   Ⓓ 7

(9) The maximum of the values (4, 7, 8, 1, 3) is ....

    Ⓐ 1   Ⓑ 3   Ⓒ 4   Ⓓ <u>8</u>

(10) The median of the values (4, 7, 8, 1, 3) is ....

    Ⓐ 1   Ⓑ 3   Ⓒ <u>4</u>   Ⓓ 7

(11) The median of the values (2, 3, 5, 7, 8, 10) is ....

    Ⓐ 2   Ⓑ 3   Ⓒ 5   Ⓓ <u>6</u>

(12) The median of the following data which represented by the dot plot is ....

  Ⓐ 2   Ⓑ 3   Ⓒ **4**   Ⓓ 5

(13) The lower quartile of the values (5, 7, 9, 10, 12, 15, 20) is ....

  Ⓐ **7**   Ⓑ 10   Ⓒ 15   Ⓓ 9

(14) The upper quartile of the values (5, 7, 9, 10, 12, 15, 20) is ....

  Ⓐ 7   Ⓑ 10   Ⓒ **15**   Ⓓ 9

(15) If the median of $(a + 1, a + 2, a + 3)$ is 10, then $a = $ ....

  Ⓐ 1   Ⓑ 2   Ⓒ 3   Ⓓ **8**

(16) The median of the values represented on the opposite box plot is ....

  Ⓐ 2   Ⓑ 3   Ⓒ **5**   Ⓓ 6

(17) The minimum of the values represented on the opposite box plot is ....

  Ⓐ **1**   Ⓑ 3   Ⓒ 5   Ⓓ 8

(18) The maximum of the values represented on the opposite box plot is ....

- (A) 1
- (B) 3
- (C) 8
- (D) **9**

(19) The lower quartile of the values represented on the opposite box plot is ....
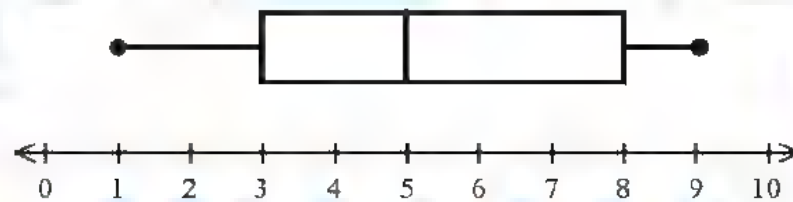
- (A) 1
- (B) **3**
- (C) 5
- (D) 8

(20) The **upper** quartile of the values represented on the opposite box plot is ....
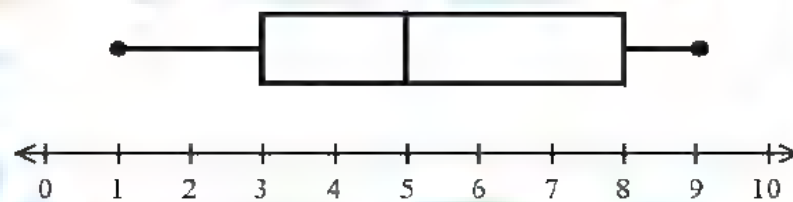
- (A) 1
- (B) 3
- (C) 5
- (D) **8**

(21) From the opposite box plot the difference between the upper quartile and the lower quartile = ...

- (A) 1
- (B) 3
- (C) **5**
- (D) 8

(22) Which display makes it easier to see the median?

Ⓐ histogram   Ⓑ <u>box plot</u>   Ⓒ dot plot   Ⓓ bar graph

(23) The shape shows the set of data in the form of intervals is ....

Ⓐ <u>histogram</u>   Ⓑ box plot   Ⓒ dot plot   Ⓓ bar graph

(24) $\dfrac{\text{sum of values}}{\text{numer of values}} = $ ....

Ⓐ Mode   Ⓑ <u>Mean</u>   Ⓒ Median   Ⓓ Outlier

(25) Mean = sum of values .... number of values.

Ⓐ +   Ⓑ –   Ⓒ ×   Ⓓ <u>÷</u>

(26) The mean of the data set (7, 13, 6, 2) is ....

Ⓐ 13   Ⓑ <u>7</u>   Ⓒ 6   Ⓓ 2

(27) The average of the data set (3, 9, 5, 16, 7) is ....

Ⓐ 6   Ⓑ 7   Ⓒ <u>8</u>   Ⓓ 9

(28) The balance of the following data   is ....

Ⓐ 1   Ⓑ <u>3</u>   Ⓒ 4   Ⓓ 6

(29) The mean of the following data   is ....

Ⓐ 1   Ⓑ 3   Ⓒ <u>4</u>   Ⓓ 6

(30) If the sum of 4 numbers is 20, then the mean of these numbers is ....

Ⓐ 4   Ⓑ 20   Ⓒ <u>5</u>   Ⓓ 6

(31) If the total score of 5 students in math is 60 then, the mean is ....

Ⓐ 5   Ⓑ 6   Ⓒ 10   Ⓓ **12**

(32) If the mean of (8, 6, x, 5) is 5, then x = ...

Ⓐ 4   Ⓑ 3   Ⓒ 2   Ⓓ **1**

(33) If the mean for 5 values is 9 then, the sum of these values is ....

Ⓐ 25   Ⓑ 35   Ⓒ **45**   Ⓓ 55

(34) The .... is the most occurs values of the data.

Ⓐ **Mode**   Ⓑ Mean   Ⓒ Median   Ⓓ Outlier

(35) A set of values with two modes are called ....

Ⓐ non-modal   Ⓑ **bimodal**   Ⓒ trimodal   Ⓓ multimodal

(36) The mode of (5, 3, 10, 4, 11, 3) is ....

Ⓐ **3**   Ⓑ 4   Ⓒ 5   Ⓓ 10

(37) The mode of the following data is ....

Ⓐ 1   Ⓑ 3   Ⓒ **4**   Ⓓ 6

(38) If the mode of the values (10, 2, x + 6) is 10 then x = ...

Ⓐ 2   Ⓑ **4**   Ⓒ 6   Ⓓ 8

(39) If the mode of the values (2, 5, 3 − y) is 2 then y = ...

Ⓐ 5   Ⓑ **1**   Ⓒ 2   Ⓓ 7

(40) The .... is value that lie away the other values.

Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ **outlier**

(41) The outlier of the values: (24, 23, 22, 3, 28) is ....

Ⓐ 1   Ⓑ **3**   Ⓒ 5   Ⓓ 15

(42) If the outlier is smaller than other values, then the outlier ………….. the mean.

Ⓐ increase   Ⓑ <u>decrease</u>   Ⓒ stay the same   Ⓓ otherwise

(43) If the outlier is greater than other values, then the outlier …………. the mean.

Ⓐ <u>increase</u>   Ⓑ decrease   Ⓒ stay the same   Ⓓ otherwise

(44) Which is better to use if the dot plots are distributed in one side of the graph?

Ⓐ <u>median</u>   Ⓑ Mean   Ⓒ either mean or median

(45) Which is better to use if the dot plots are distributed in two side of the graph without symmetry?

Ⓐ median   Ⓑ <u>Mean</u>   Ⓒ either mean or median

(46) Which is better to use if the dot plots are distributed symmetrically on the graph?

Ⓐ median   Ⓑ Mean   Ⓒ <u>either mean or median</u>

(47) The better measure of the central tendency of the following data set is …………..

Ⓐ Median   Ⓑ Mean   Ⓒ <u>either mean or median</u>

(48) The …………. is the better measure of central tendency for data set with outlier.

Ⓐ <u>median</u>   Ⓑ Mean   Ⓒ otherwise.

(49) The .... is the better measure of central tendency for data set with no outlier.

Ⓐ median   Ⓑ **Mean**   Ⓒ otherwise.

(50) .... = the greatest value – the smallest value.

Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ **Range**

(51) Range = max .... min.

Ⓐ +   Ⓑ **–**   Ⓒ ×   Ⓓ ÷

(52) The difference between the greatest value and the smallest value in the data set is called ....

Ⓐ Mode   Ⓑ Mean   Ⓒ Median   Ⓓ **Range**

(53) The range of the set of values (7, 3, 6, 9, 5) is ....

Ⓐ 3   Ⓑ 4   Ⓒ **6**   Ⓓ 12

(54) If the values of data set start from 20 to 50, then the range = ...

Ⓐ 20   Ⓑ **30**   Ⓒ 40   Ⓓ 50

(55) The range of the following data is ....

Ⓐ 1   Ⓑ 4   Ⓒ **5**   Ⓓ 6

(56) The range of the following data is ....

Ⓐ 3   Ⓑ 5   Ⓒ 7   Ⓓ **8**

(57) The range cannot be found using ....

Ⓐ box plot   Ⓑ dot plot   Ⓒ **histogram**   Ⓓ otherwise

2 **complete**

(1) The type of statistical questions are <u>numerical data</u> and <u>categorical data</u>

(2) The minimum value of (2, 3, 5, 1, 15) is <u>1</u>

(3) The maximum value of (2, 3, 5, 1, 15) is <u>15</u>

(4) <u>median</u> is the middle value of the data set.

(5) The median of the set of value (5, 7, 8, 3, 6) is <u>5</u>

(6) The median of the set of value (9, 8, 6, 3, 4, 1) is <u>5</u>

(7) The average of (3, 4, 6, 6, 7, 8) is <u>6</u>

(8) The lower quartile of the set of value (7, 6, 2, 9, 6, 0, 6) is <u>2</u>

(9) The upper quartile of the set of value (7, 6, 2, 9, 6, 0, 6) is <u>7</u>

(10) If the median of $(k + 1, k + 2, k + 5, k + 4, k + 3)$ is 13, then $k =$ <u>10</u>

(11) If the median of values $(x - 3, x - 1, x - 5)$ is 5, then $x =$ <u>8</u>

(12) The shape shows the set of data in form of intervals is <u>histogram</u>

(13) $\underline{Mean} = \dfrac{\text{sum of values}}{\text{numer of values}}$

(14) Mean = sum of values – number of values.

(15) The mean of the data set (18, 35, 24, 6) is <u>20.75</u>

(16) The mean of the data set (3, 5, 4, 7, 6) is <u>5</u>

(17) The average of the data set (10, 10, 10, 10) is <u>10</u>

(18) If the sum of 5 numbers is 30, then the mean of these numbers is <u>6</u>

(19) If the total score of 4 students in math is 40 then, the mean is <u>10</u>

(20) If the mean of (3, 5, x) is 4, then x = <u>4</u>

(21) If the mean for 4 values is 10 then, the sum of these values is <u>40</u>

(22) The <u>mode</u> is the most occurs values of the data.

(23) A set of values with two modes are called <u>bimodal</u>

(24) The mode of (7, 10, 15, 7, 10, 13, 7, 15, 7) is <u>7</u>

(25) If the mode of the values (2, 7, x – 3) is 2 then x = <u>5</u>

(26) The <u>outlier</u> is value that lie away the other values.

(27) The outlier of the values: (7, 46, 47, 49, 50) is <u>7</u>

(28) The two outliers of the values: (23, 205, 207, 200, 209, 1000)
are <u>23</u> and <u>1000</u>

(29) The outlier in the opposite dot plot is <u>1</u>

(30) If the outlier is smaller than other values, then the outlier <u>decrease</u>
the mean.

(31) If the outlier is greater than other values, then the outlier <u>increase</u>
the mean.

(32) The <u>median</u> is the better measure of central tendency for data set
with outlier.

(33) The <u>mean</u> is the better measure of central tendency for data set with
no outlier.
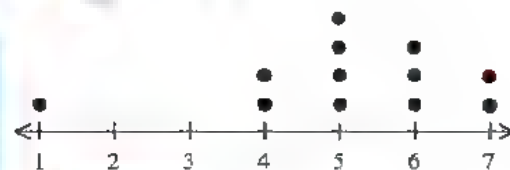
(34) Range = <u>**max**</u> – <u>**min**</u>   **or**   <u>**greatest value – smallest value**</u>

(35) The difference between the greatest value and the smallest value in the data set is called <u>**range**</u>

(36) The range cannot be found using <u>**histogram**</u>

(37) The range of the numbers (16, 15, 9, 6) is <u>**7**</u>

(38) If the values of data set start from 30 to 60, then the range of this data = <u>**30**</u>

(39) The range of the following data is <u>**5**</u>
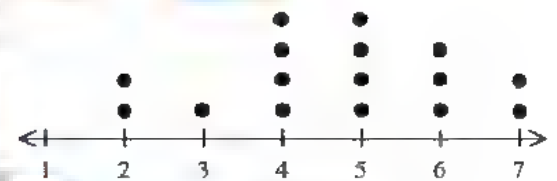
(40) The range of the following data is <u>**6**</u>
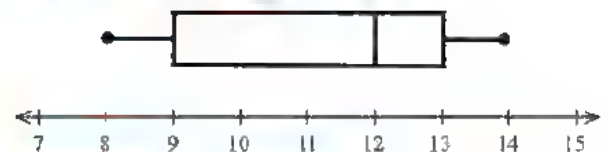
(41) If the range of data set is 34 and the smallest value is 45, then the greatest number is <u>**79**</u>

(42) If 88 is the greatest number of data set and the range = 21, then the smallest number is <u>**67**</u>

3 Answer the following questions

(1) From the opposite box plot, complete:

a) The minimum value = **1**

b) The maximum value = **14**

c) The median = **9**

d) The lower quartile = **3**

e) The upper quartile = **12**
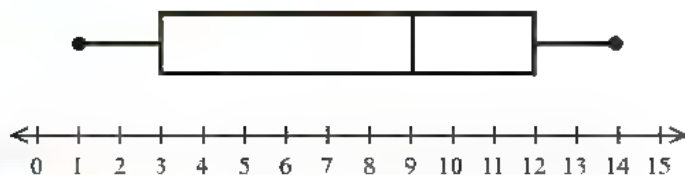
(2) From the opposite box plot, complete:

a) The minimum value = **11**

b) The maximum value = **23**

c) The median = **18**

d) The lower quartile = **13**

e) The upper quartile = **21**
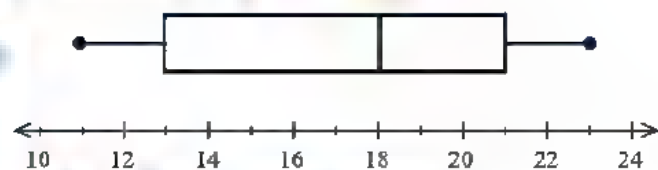
(3) For the set of values: 10, 9, 8, 7, 6, 4, 2:

a) The minimum value = **2**

b) The maximum value = **10**

c) The median = **7**

d) The lower quartile = **4**

e) The upper quartile = **9**

(4) Draw a box plot for the values (5, 1, 9, 4, 3, 6, 2)

a) The minimum value = **1**

b) The maximum value = **9**

c) The median = **4**

d) The lower quartile = **2**

e) The upper quartile = **6**
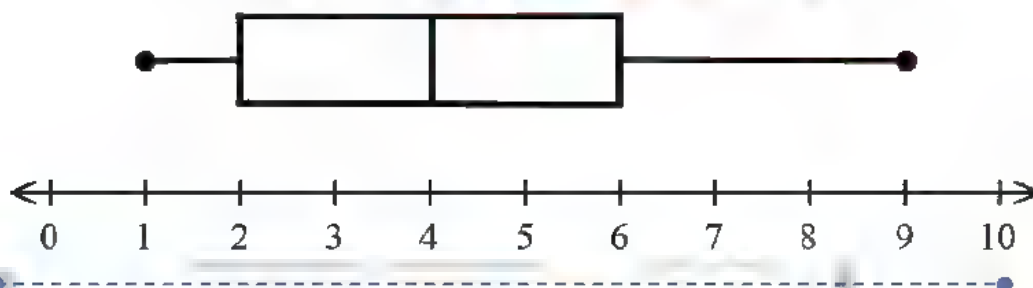
(5) By using the opposite dot plot find:

a) The mean = **2**

b) The median = **2**

c) The mode = **2**

d) The range = **4**
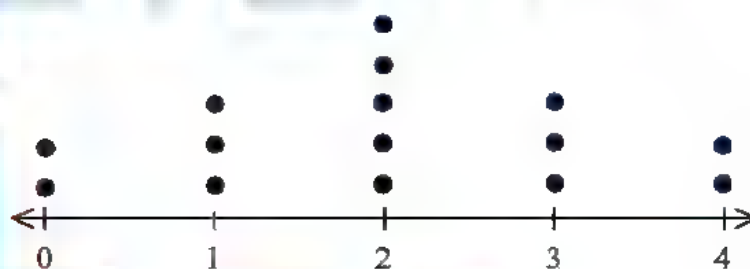
(6) For the set of values: 2, 5, 4, 1, 2, 26, 2:

Find

a) The median = **2**

b) The mean = **6**

c) The mode = **2**

d) The range = **25**

e) The outlier = **26**

(7) If Ali saves 17.50 L.E.,15.75 L.E, 29.75 L.E. from her salary. Find the mean of Ali savings.

$$\text{the mean} = \frac{17.50+15.75+29.75}{3} = 21 \text{ L.E.}$$

(8) Ahmed runs 4 km on Sunday, 3 km on Monday, 5 km on Tuesday and 4 km on Friday. Find the mean of distances covered by Ahmed.

$$\text{the mean} = \frac{4+3+5+4}{4} = 4 \text{ km}$$

(9) The following table shows the daily wages of 50 workers of company.

Sets	Frequency
120-129	8
130-139	10
140-149	16
150-159	12
160-169	4

The daily wages of workers
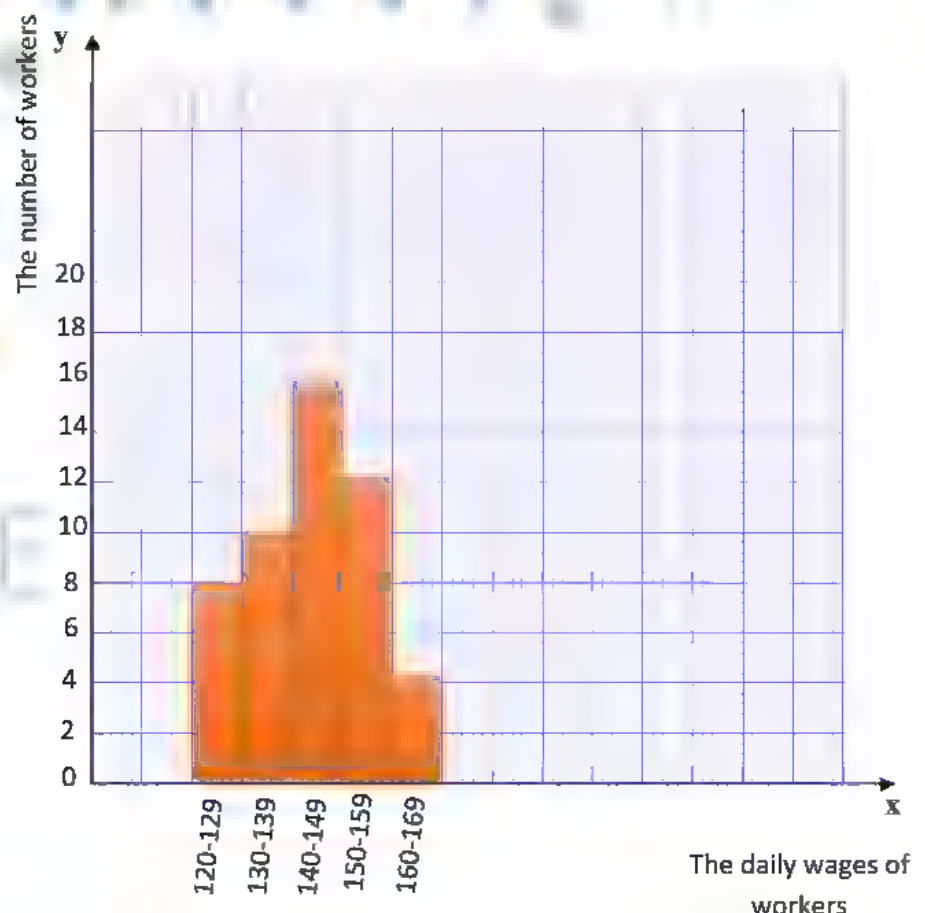
المراجعة رقم (5)

الترم الأول

Part 1

Q1- Choose the correct answer:-

1) Which of the following are relatively prime numbers ....

a) 4 and 8   b) 12 and 18   c) 2 and 12   d) 9 and 4

2) Which of the following are relatively prime numbers ....

a) 2 and 6   b) 15 and 30   c) 35 and 16   d) 12 and 18

3) Which of the following is not prime number ....

a) 2   b) 5   c) 7   d) 9

4) 20 + 25 = ...

a) 2 (0 + 5)   b) 5 (5 + 5)   c) 5 (4 + 5)   d) 20 (0 + 5)

5) ...... (5 + 2) = 15 + 6

a) 2   b) 3   c) 4   d) 5

6) The L.C.M of 5 and 15 is ....

a) 15   b) 0   c) 30   d) 1

7) $\frac{2}{7}+\frac{2}{7}+\frac{2}{7}+\frac{2}{7}$ = ...

a) $\frac{11}{28}$ b) $1\frac{1}{7}$ c) $\frac{11}{14}$ d) $\frac{10}{7}$

8) The equivalent fraction $\frac{12}{15}$ is ....

a) $\frac{2}{5}$ b) $\frac{3}{4}$ c) $\frac{4}{5}$ d) $\frac{1}{3}$

9) Murad has 120 crayons , distribute them among 6 of his friends , how many crayons are left ?

a) 1   b) 0   c) 3   d) 6

10) 8 and .... Are two relatively prime numbers

a) 4   b) 12   c) 21   d) 24

11) The opposite of the number -8 is ....

  a) -8   b) 8   c) 0   d) -7

12) Which of the following is an integer ?

  a) $\dfrac{15}{2}$ b) $\dfrac{15}{3}$ c) $\dfrac{15}{4}$ d) $\dfrac{15}{6}$

13) Which of the following nearest to zero ?

  a) -4   b) 4   c) -3   d) 2

14) -3 .... -(-3)

  a) <   b) >   c) =

15) An integer included between -2 and 3 ....

  a) -3   b) 3   c) -4   d) -1

16) The integer which comes just next -1 is ....

  a) -2   b) 0   c) 2   d) 1

17) The opposite of the opposite of 5 is ....

  a) -5   b) – (-5)   c) 0   d) 10

18) The smallest number from the following is ....

  a) -7   b) 2   c) 1   d) -17

19) The greatest number from the following is ....

  a) -2   b) -1   c) -10   d) -11

20) Which of the following is the nearest to zero ?

  a) 4   b) -2   c) -3   d) 3

21) The greatest negative integer is ....

  a) -2   b) – (-1)   c) 0   d) -1

22) The greatest non-positive is ....

  a) 1   b) -1   c) 0   d) -(-1)

23) The distance between the opposite of 4 and zero on the number line equals .... units

a) 4　　　　　b) -4　　　　　c) 0　　　　　d) 8

24) All the following numbers are rational except ....

a) 0　　　b) $\frac{3-3}{5}$　　　c) $\frac{2}{5}$　　　d) $\frac{4}{5-5}$

25) -4 .... set of counting numbers

a) belong to　　b) does not belong to　　c) is subset of　　d) is not subset of

26) The best subset of the number -10 is ....

a) rational　　b) counting　　c) integers　　d) natural

27) The best subset of the number 1 is ....

a) rational　　b) counting　　c) integers　　d) natural

28) Each number in the set of integers is called ....

a) element　　b) set　　c) subset　　d) not subset

29) The best subset of the number 0 is ....

a) rational　　b) counting　　c) integers　　d) natural

30) $\frac{3}{5}$ --------- $\frac{2}{7}$

a) <　　　　　b) >　　　　　c) =

31) $-\frac{1}{4}$ --------- $-\frac{2}{9}$

a) <　　　　　b) >　　　　　c) =

32) Seif deposit 1,000 L.E. in a bank represents as ....

a) 1000　　　b) -1000　　　c) 100　　　d) -100

33) 0.7 .... 0.65

a) <　　　　　b) >　　　　　c) =

34) .... is lying between 3.14 and 3.2

a) 3.15　　　b) 3.21　　　c) 3.20　　　d) 3.22

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3

35) The number of rational numbers lying between $\frac{2}{5}$ and $-\frac{2}{5}$ is

  a) 2   b) 1   c) 0   d) infinite number

36) The smallest number from the following is ....

  a) 0.11   b) 0.3   c) 0.101   d) $\frac{1}{\blacksquare}$

37) The greatest number from the following is ....

  a) $\frac{1}{4}$ b) $\frac{1}{3}$ c) $\frac{1}{12}$ d) $\frac{1}{2}$

38) 0 ....-2

  a) <   b) >   c) =

39) If |-99| = x , then x = ...

  a) -99   b) 99   c) 9   d) -9

40) |-11| > ....

  a) 10   b) 11   c) 13   d) 101

41) The distance between -4 and its opposite on number line is …. units

  a) 0   b) 4   c) 8   d) 16

42) The absolute values of opposites are ....

  a) equal   b) negative   c) different

43) A negative number with an absolute value greater than 10 is ....

  a) 10   b) 11   c) -9   d) -12

44) The absolute value of the opposite of -7 is ....

  a) 7   b) -7   c) 14   d) -14

45) The set of integers consists of negative numbers and .... numbers

  a) natural   b) counting   c) rational   d) positive

46) Which of the following is counting number ....

  a) 0   b) -1   c) 1   d) -2

47) $-3\frac{1}{2}$ lies between two whole numbers ....

  a) 0 and 1   b) -2 and -3   c) 3 and 4   d) -3 and -4

48) The number of integers lies between $\frac{3}{5}$ and $\frac{16}{5}$

  a) 0   b) 3   c) 2   d) infinite

49) The number of integers lies between 3.1 and 3.2

  a) 0   b) 3   c) 2   d) infinite

50) Which of the following is an algebraic expression ....

  a) $44 - 3 \times 4$ b) 3 + 7 - 0   c) 15 a - 32   d) 2 (3 - 4)

51) The number of like terms in the expression 3 + 2x + 5 is ....

  a) 1   b) 2   c) 3   d) 4

52) Which of the following are like terms ? ....

  a) 25 , 52   b) l , m   c) ab , aq   d) ab , ac

53) 2 + 3 (..............) complete to get numeric expression

  a) a   b) x   c) 20 -15   d) a + x

54) Twice the difference of a number and 5 is ....

  a) 2Y + 5   b) 2Y - 5   c) 2 (Y − 5)   d) 2 (Y + 5)

55) Yara saved n L.E. and her mother gave her 5 L.E. she will have ....

  a) n -5   b) n + 5   c) 5 - n   d) 5n

56) Nada is X years old now how old will she be after 6 years ?

  a) x - 6   b) 6x   c) 6 + x   d) 6 - x

57) 5^4 = ...

  a) 4^5 b) 4 x 5   c) 5 x 5x 5x 5   d) 5x5x 5x5x5

58) The value of the expression 3n − 2 for n = 7 is ....

  a) 14   b) 19   c) 21   d) 23

59) The first operation you perform in the expression $5(3^2 - 2) + 7$ is ....

   a) add   b) multiply   c) subtract   d) exponent

60) The value of the expression $2X^2 - (3 \times 4 + 2^3) =$ .... at $X = 5$

   a) 50   b) 30   c) 40   d) 35

61) $8 - 3 \times 2 \div (4 - 2)^2 =$ ....

   a) 2.5   b) 1   c) 0.5   d) 6.5

62) Two cubed added to 5 squared equals = ...

   a) $2 \times 3 + 5 \times 5$ b) $3^2 + 2^5$ c) $2^3 + 5^2$ d) $2^3 + 5^4$

63) The coefficient in the expression $6 - 3 + 5 X$ is ....

   a) 6 , 3   b) 5 X   c) 5   d) X

64) Number of like terms in the expression $4a + 4b + 5$ is ....

   a) 3   b) 2   c) 1   d) 0

65) Subtract 8 from the number k in algebraic form ....

   a) 8 - k   b) k - 8   c) 8 + k   d) 8k

66) Marwan has 50 L.E. he bought 3 pens each for k L.E. then the remainder is ....

   a) 30   b) 3 + 50k   c) 50 - 3k   d) 50 + 3k

67) Take away twice the number k from 15 is written as ....

   a) 2k – 15   b) 15 + 2k   c) 15 - 2k   d) $15 - k^2$

68) 5 times a number less 7 is ....

   a) 5b + 7   b) 5b - 7   c) 7 – 5b   d) $7 - b^2$

69) The value of the expression $5 + (X^2 - 3) =$ .... at $X = 3$

   a) 6   b) 9   c) 12   d) 11

70) $7 + 3 ($ .... $+ 5) - 4$ complete to get numeric expression

   a) b   b) k^3 c) 10 - 6   d) x + y

71) If 25 ÷ b = 5 , then b = ...

     a) 20   b) 5   c) 40   d) 1

72) If 3X = 12 , then $\frac{1}{2}$ X = ...

     a) 9   b) 6   c) 4   d) 2

73) If y ÷ 2 = 8 , then $\frac{1}{4}$ y = ...

     a) 8   b) 6   c) 4   d) 2

74) A number if added to 17 , the sum is 28 then the number is ....

     a) 11   b) 18   c) 45   d) 18

75) A product of a number x and 6 is 42 , then x = ...

     a) 6   b) 7   c) 48   d) 36

76) Which of the following is a solution of inequality m ≥ -1 ?

     a) -2   b) -3   c) -4   d) 0

77) All of the following are solutions of inequality m < -3 except ....

     a) -2   b) -10   c) -5   d) -6

78) The inequality that represent the graph is ....

     -3   -2   -1   0   1   2   3   4   5   6

     a) k < -1   b) k > -1   c) k ≤ -1   d) k ≥ -1

79) Number of solutions of inequality s > 10 is ....

     a) 2   b) 1   c) 0   d) infinite

80) .... Is a solution of x < 4

     a) 3.96   b) 4   c) 4.23   d) 5

81) All of the following are solutions of inequality m < -3 except ....

    a) |-4| b) -3   c) 4   d) 5

82) If 3x = 0 , then $\frac{1}{2}$ x = ...

    a) 3   b) -3   c) $1\frac{1}{2}$ d) 0

83) Mohamed has 47 pounds , his friend has less than mohamed , then his friend has ....

    a) 53   b) 47   c) 100   d) 19

84) A number is no more than 10 can be written as ....

    a) x < 10   b) x > 10   c) x ≤ 10   d) x ≥ 10

85) In the equation x = 4y + 3 , the independent is ....

    a) 4   b) x   c) y   d) 3

86) In the equation 9a + 24 = b , the dependent is ....

    a) 9   b) a   c) 24   d) b

87) 8 more than S equals T in equation is ....

    a) 8S = T   b) 8 + S = T   c) 8T = 8   d) 8 + T = S

88) M equals the product of n and 3 in equation is ....

    a) m = 3n   b) m = 3 + n   c) n = 3 + m   d) n = 3m

89) 4 times L added to 7 equals k , in equation is ....

    a) 7L + 4 = k   b) 7k + 4 = L   c) 4L + 7 = K   d) 4k + 7 = L

90) The word phrase for the equation g = 9h is ....

    a) h equals g increased by 9   b) g equals 9 times h   c) h equals 9 times g   d) g equals h increased by 9

91) In the equation y = 3 x ,if x = 5.1 ,then y would be ....

    a) 8.1   b) 53.1   c) 18.3   d) 15.3

92) The ordered pair which satisfies the equation y = x+ 1 is ....

    a) (1 , 0)   b) (1 , 2)   c) (1 , 1)   d) (2 , 1)

93) In the equation $y = -2x$, y equals 8 where $x =$ ....

   a) 2   b) 4   c) 6   d) 8

94) In the equation $y = 3x + 6.4$, if $x = 1$, then y would be ....

   a) 6.4   b) 18.4   c) 19.2   d) 9.4

95) In the equation $y = \frac{1}{2}x + 1$, if $x = 12$, then y would be ....

   a) 6.5   b) 13   c) 7   d) 6

96) If the equation $y = x + 4$ is represented by the following table, then a

   = ...

   a) 6   b) 5   c) 2   d) 8

x	0	2	3
y	4	a	7

97) The equation which represents the following table is ....

   a) $y = x + 2$ b) $y = 2x$ c) $y = 2x + 1$ d) $y = \frac{x}{2} + 2$

x	1	2	3
y	3	5	7

Q2- Complete the following :-

1) $3548 \div 23 =$ .... R 6

2) $984 \div 5 =$ .... R ....

3) $264 \div 65 =$ .... R ....

4) $1515 \div 15 =$ ....

5) The divisor in the equation $16{,}692 \div 52 = 321$ is ....

6) If the price of 15 boxes 3,645, then the price of each one is ....

7) A merchant paid 7,420 L.E. to buy 53 boxes of mango, then the price of each box is .... , and if each box contains 5 kg of mango then the price of each kg is ....

8) The LCM of 5 and 7 is ....

9) Factors of 18 are ....

10) A number whose prime factors are 2,3,5 is ....

11) The smallest prime number is ....

12) The prime number has .... factors

13) The common factor of all numbers is ....

14) The greatest common factor of two prime numbers is ....

15) .... is a multiple of any number

16) The GCF of 15 and 10 is ....

17) The LCM of 8 and 18 is ....

18) In the opposite venn diagram the GCF is ....

19) In the opposite venn diagram the LCM is ....

20) In the opposite venn diagram the GCF is ....

21) Yara saves 105 L.E. weekly , so she saves daily ....

22) 3 (2 + 5) = ... × .... + ... × ....

23) From the opposite venn diagram the expression is ......

24) The greatest common factor of 6 and 8 is ....

25) 6 (7 + 9) = 42 + ...

26) .... (5 + 2) = 15 + 6

27) 30 + 50 = ... (............ + ...)

28) 5 (2 + ...) = 10 + 35

29) 9 (1 + 2) = 9 + ...

30) $\frac{2}{5} + \frac{3}{10} =$ ....

31) $\frac{3}{4} - \frac{5}{8} =$ ....

32) $3\frac{1}{4} + 7\frac{1}{3} = $ ………

33) The smallest non negative integer is ………

34) The opposite of zero is …………

35) The smallest natural number is ………, the smallest counting number is ……

36) The smallest positive integer is ………, the greatest negative integer is ……

37) The number ……… neither negative nor positive

38) The integer which just next (after) –4 is …………

39) The integer which just before –10 is …………

40) The number of integers between –4 and 3 is …………

41) The opposite number line ,

the integer which represents a is ………

$$a \qquad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad 4$$

42) Set of counting numbers is …………… of set of rational numbers .

43) Set of natural numbers is …………… of set of counting numbers .

44) Set of rational numbers is …………… of set of integers .

45) Set of integers is …………… of set of rational numbers .

46) 0 ………… to set of rational numbers .

47) $\frac{15}{3}$ ………… to set of counting numbers .

48) |–6| ………… to set of natural numbers .

49) The rational number –4.7 lies between two integers ………… and …………

50) 4 = ………… (write in fraction form $\frac{a}{b}$)

51) $2\frac{1}{4} = $ ………… (write in fraction form $\frac{a}{b}$)

52) –1.5 = ………… (write in fraction form $\frac{a}{b}$)

53) The opposite of $|-\frac{1}{2}|$ is …………

54) |–2| × 0 = …………

55) If |x| = 4 , the x = ………… or …………

56) |–5| – 5 = …………

57) 0 × |–3| = …………

58) |–2| + |–13| = …………

59) $|-30| \div |-5| =$ ....

60) $|-9| >$ ....

61) The constant in the expression $2X + 5$ is ....

62) The number of terms in expression $5 - 2m - 3m - 4$ is .... terms

63) The coefficient in the algebraic expression $4X + 3$ is ....

64) $5 (4 + 6)$ is .... expression

65) $2m - 3$ is .... expression

66) The verbal expression for $2m - 7$ is ....

67) The algebraic expression for a number less 7 is ....

68) Seif works X hours daily , then the algebraic expression for the number of worked hours monthly is ....

69) Write the algebraic expression for subtract 7 from the double of number X ....

70) Write the algebraic expression for 8 decreased by 3 times a number M ....

71) Write the algebraic expression for twice the sum of a number and 3 ....

72) $2^3 =$ ....

73) The value of expression $X + 3^2$ if $X = 1$ is ....

74) $(17 - 11) + 3 \times 2^4 \div 2^3 =$ ....

75) The value of expression $4 (3X + 1) =$ .... at $X = 1$

76) Five squared = ...

77) The two like algebraic terms in $5 - 4X + 2^3$ are ....

78) If the price of a piece of tart is 18 L.E. then the algebraic expression represent the price of n pieces is ....

79) If the base is 7 , the exponent is 5 then the exponential form is ....

80) $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 = 3$ ....

81) Area of the square whose side length 7 cm in the exponential form is .... cm^2

82) The volume of cube whose edge length 5 cm is ....

83) 5 cubed = ...

84) If X + 2 = 9 , then X = ...

85) If Y – 3 = 10 , then Y = ...

86) If 9 Z = 63 then Z = ...

87) If $\frac{k}{8}$ = 7 , then K = ...

88) Yara bought 3 pens for X L.E. each , she paid 15 L.E. , then X = ...

89) If x + x + x = 18 , then x = ...

90) If $\frac{X}{3}$ = 4 , then twice X = ...

91) If k + 1 = 5 , then k – 3 = ...

92) If m -3^2 = 1 , then m = ...

93) The number of solutions of equation x + 3 = 5 is / are .... solution(s)

94) The algebraic expression of subtract 3 from k is ....

95) 4k = 20 , then k = ...

96) Seif saved X L.E. and his father gave him 6 L.E. , he will has ....

97) The inequality that represents the following graph is ....
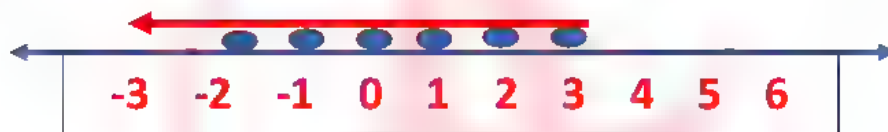
98) .... is a solution of inequality X < -3

99) $\frac{3}{4}$ x = $\frac{3}{4}$, then 2X = ...

100) A number if add to 7 , the sum is 13 , then the number is ....

101) 7 more than x equals y as an algebraic equation is ....

102) Five times c equals d as an algebraic equation is ....

103) m equals twice n increased by 25 as an algebraic equation is ....

104) S equals the product of eight and r added to 42 as an algebraic equation is ....

105) In the equation . t = 20p , the dependent is ....

106) In the equation . m = 11n + 2 , the independent is ....

107) In the equation y = 2 + x ,if x = 3 , then y would be ....

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13

108) The verbal phrase for $Y = 3x + 1$ is ....

109) The verbal phrase for $y + 2 = x$ is ....

110) In the rule : $y = 4x$, if $x = 1.3$ m ,then $y =$ ....

111) The ordered pair which satisfies the rule : $y = x + 3$ is (1 , ...)

Q3- Find the G.C.F using venn diagram :-

10 and 30   7 and 12
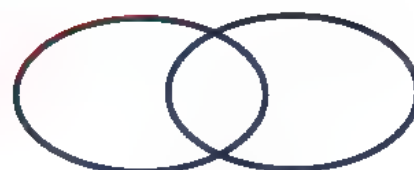
Q4- Answer the following :-

1- Yara has 24 pens and 16 rules , she wants to put them in groups , what the greatest number of groups that can be made so that each group has the same number of items ? how many pens will be in each group ? how many ruler will be in each group ? and write the numerical expression which represents the total number of items .

2- Use the venn diagram to find G.C.F & L.C.M of 15 and 10

3- Seif ate $\frac{1}{4}$ of the cake and Maria ate $\frac{1}{3}$ of the same cake , how much of the cake has been eaten ? and how much left ?

Q5- Arrange in ascendeing order :-

1) -6 , 0 , -4 , 4 , -7 , 3

....

2) 7 , -7 , -3 , -5 , 11 , -11

....

3) $-\frac{1}{2}$, $-\frac{1}{3}$, -1 , $\frac{1}{4}$

....

Q6- Find two rational numbers lying between:-

1) $\frac{2}{3}$ and $\frac{5}{6}$

....

....

....

2)   3.75 and 3.76

....

....

Q7- Complete the following tables then make the graph :-

1) The equation is Y = x + 2

x	0	1	2
y			
(x,y)			
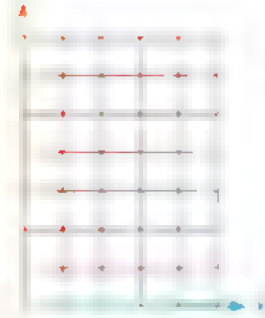
2) The equation is Y = 2x

| x	1	3	5
y			
(x,y)			
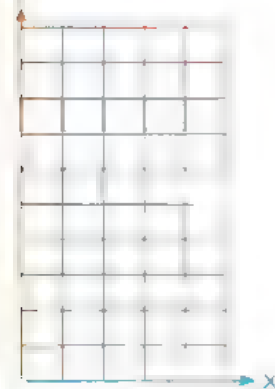
> **Part 2**
>
> statistical

Q1- Identify which question is statistical or non statistical :-

1) How tall are you ?
2) How tall are the students in your class ?
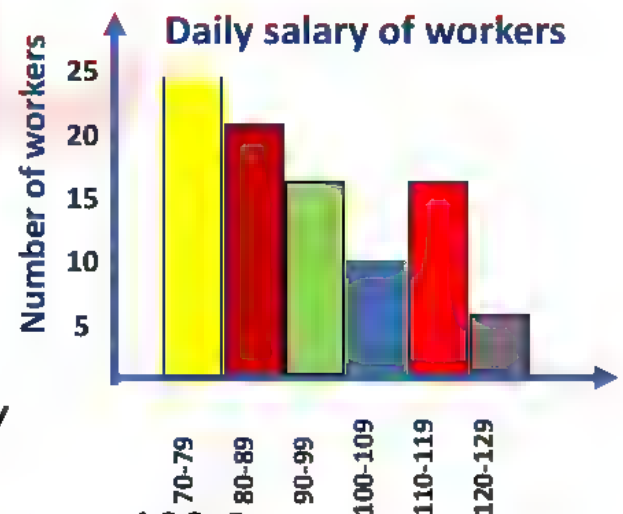3) What do the students prefer to eat for lunch ?

Q2-From the opposite graph answer the following :-

1) how many students were surveyed ?
2) how many students had 3 siblings ?
3) how many students had more than 1 sibling ?
4) how many students had 2 siblings or more?
5) how many students had less than 3 siblings

0   1   2   3   4   5
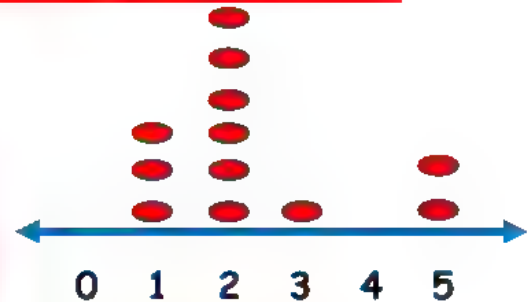
Q3-From the opposite graph answer the following :-

1) The total number of worker is ....
2) The daily salary interval maximum Number of workers is ....
3) The number of workers whose daily Salary is 90 or more = ...
4) The number of workers whose daily Salary is less than 120 = ...
5) The intervals having the least frequency Are ....
6) How many workers whose daily salary at least 100 ?

Daily salary of workers

Number of workers

25
20
15
10
5

70-79   80-89   90-99   100-109   110-119   120-129

Q4- The following data represents the ages of 30 workers in a company

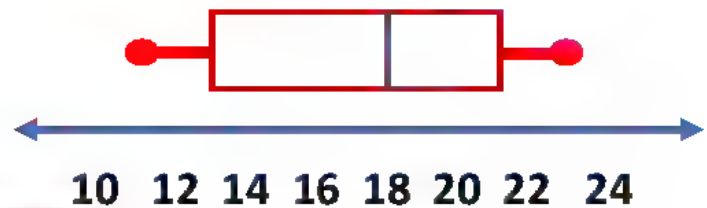| marks	21	22	23	24	25	26	27	29	30
Number of students	3	5	2	6	1	4	1	3	5

a) Complete the table

b) Draw a histogram to represent data

Intervals   **Frequency**

Q5- From the opposite Box plot complete :-

1) The minimum value = ...
2) The maximum value = ...
3) The median = ...
4) The lower quartile = ...
5) The upper quartile = ...

10 12 14 16 18 20 22 24

Q6- Find the 5-number summary for the following data and draw the box plot

4 , 5 , 7 , 10 , 12 , 13 , 14 , 16 , 18

Q7- Choose the correct answer :-

1) Which display makes it easier to see the median ?

   a) histogram   b) dot plot   c) bar graph   d) box plot

2) The mean of the data set 7 ,13 ,6 and 2 is 7

   a) 2   b) 6   c) 7   d) 13

3) If the mean of 8 , 6 , x and 5 is 5 , then x = ...1

   a) 4   b) 3   c) 2   d) 1

4) The balance of the data set 5 , 7 , 6 , 8 , 6 and 10 is ....

   a) 7   b) 5   c) 8   d) 10

5) The average of 11,12,14,14,14,14,15, 16 and 16 is ....

   a) 11   b) 14   c) 13   d) 15

6) If the mean of the marks of 5 students is 20 marks ,then the sum of their marks equals .... marks   100

   a) 4   b) 15   c) 25   d) 100

7) If the mean of the ages of Hanan and Wesam is 7 years and the age of Hanan is 8 years , then the age of Wesam is 6

a) 7   b) 15   c) 6   d) 8

8) If the mean of the side lengths of a triangle is 8 cm , then the perimeter of the triangle is ....

a) 8 cm   b) 18 cm   c) 24 cm   d) 15 cm

9) A set of values with two modes are is called ....

a) bimodal   b) trimodal   c) multimodal   d) non-modal

10) The mode of the following data set (3,4 ,5 ,3 ,5 ,7 ,5 ,9 ,5 ,2) is ....

a) 3   b) 5   c) 7   d) 9

11) The range = the greatest value .... the smallest value.

a) +   b) -   c) ×   d) ÷

12) If the values of data set start from 30 to 60, then the range of this data = ...

a) 30   b) 20   c) 60   d) 90

Q8- Complete the following :-

1) The median of the values 4 , 7 , 8 , 1 and 3 is ....
2) The median of $a + 1$, $a + 2$, $a + 3$ is 10 then a = ...
3) The lower quartile for the set of data 5,7,9,10,12,15,20 is ....
4) Types of statistical questions are .... and ....
5) The shape shows the set of data in form of intervals is ....
6) The shape shows individual data is ....
7) The shape shows the median is ....
8) The shape shows number of individual data is ....
9) The shape shows lower quartile is ....
10) The shape shows the five-number summary is ....

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11) The mean of the following data is …………

7 8 9 10 11 12 13
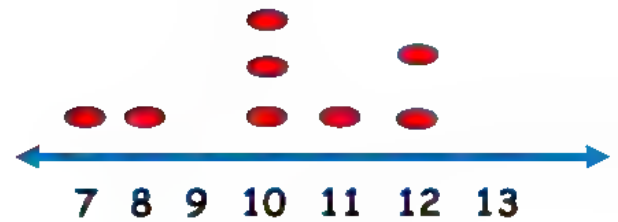
12) The balance of the data set 15 , 16 , 18 , 18 ,19 , 20 , 20 is …………

13) If the mean of 8,6, x,5 is 5 then x = …………..

14) The average of the values 10 , 10 , 10 ,10 is ……………

15) The median of values 5 , 3 , 3 , 8 , 4 , 7 , 1 and 10 is …………

16) The sum of seven numbers is 49 , then the mean of these numbers is ……

17) If the sum of five numbers is 30 ,then the mean of these numbers is ……

18) ……… .. are values that lie away the other values

19) The outlier value of the data set (7,46 ,48 ,49,50 ,5l ,52) is …………

20) The two outlier values of this data set (31 ,205 ,207 ,200 ,201 ,206,202,209 ,1,0001) are ………… and …………

21) ………… is the measure of central tendency changed more with the outlier.

22) The better measure of central tendency for data set with outlier value is ………………

23) …………… is the better measure of central tendency for data set with no outlier value .

24) The ……………. is the value that occurs most often.

25) The mode of (7,10,15,7,10,13,7,15,7) is ………………

26) The range of the set of values 6 , 5 , 9 , 4 , 11 ,3 and 7 is …………

27) If 50 is the greatest number of data set and the range = 10 'then the smallest number of this data set equals ……………

28) The range = ………………………………

29) The difference between the greatest value and the smallest value in data set is ....

30) .... is the middle value of the data set

31) The median of the following data which is represented by dot plot is

....

7   8   9   10   11   12   13

32) The mean of the following data equals ....

1   2   3   4   5   6   7   8

33) The mode of the opposite data set is ....

10   11   12   13   14   15   16

34) From the following dot plot, the best measure of central tendency ....
and its value = ...

5   6   7   8   9   10   11   12   13   14

35) In the opposite box plot , the range = ...

1   2   3   4   5   6   7   8

36) In the opposite data, the range = ...

17   19   21   23   25   27   29

Part 1

Q1- Choose the correct answer:-

1) Which of the following are relatively prime numbers ....

 a) 4 and 8   b) 12 and 18   c) 2 and 12   <u>d) 9 and 4</u>

2) Which of the following are relatively prime numbers ....

 a) 2 and 6   b) 15 and 30   <u>c) 35 and 16</u>   d) 12 and 18

3) Which of the following is not prime number ....

 a) 2   b) 5   c) 7   <u>d) 9</u>

4) 20 + 25 = ...

 a) 2 (0 + 5)   b) 5 (5 + 5)   <u>c) 5 (4 + 5)</u>   d) 20 (0 + 5)

5) .... (5 + 2) = 15 + 6

 a) 2   <u>b) 3</u>   c) 4   d) 5

6) The L.C.M of 5 and 15 is ....

 <u>a) 15</u>   b) 0   c) 30   d) 1

7) $\frac{2}{7}+\frac{2}{7}+\frac{2}{7}+\frac{2}{7}$ = ...

 a) $\frac{11}{28}$ b) $1\frac{1}{7}$ c) $\frac{11}{14}$ d) $\frac{10}{7}$

8) The equivalent fraction $\frac{12}{15}$ is ....

 a) $\frac{2}{5}$ b) $\frac{3}{4}$ c) $\frac{4}{5}$ d) $\frac{1}{3}$

9) Murad has 120 crayons , distribute them among 6 of his friends , how many crayons are left ?

 a) 1   <u>b) 0</u>   c) 3   d) 6

10) 8 and ...... Are two relatively prime numbers

 a) 4   b) 12   <u>c) 21</u>   d) 24

11) The opposite of the number -8 is ....

  a) -8   b) 8   c) 0   d) -7

12) Which of the following is an integer ?

  a) $\frac{15}{2}$ b) $\frac{15}{3}$ c) $\frac{15}{4}$ d) $\frac{15}{6}$

13) Which of the following nearest to zero ?

  a) -4   b) 4   c) -3   d) 2

14) -3 .... -(-3)

  a) <   b) >   c) =

15) An integer included between -2 and 3 ....

  a) -3   b) 3   c) -4   d) -1

16) The integer which comes just next -1 is ....

  a) -2   b) 0   c) 2   d) 1

17) The opposite of the opposite of 5 is ....

  a) -5   b) -(-5)   c) 0   d) 10

18) The smallest number from the following is ....

  a) -7   b) 2   c) 1   d) -17

19) The greatest number from the following is ....

  a) -2   b) -1   c) -10   d) -11

20) Which of the following is the nearest to zero ?

  a) 4   b) -2   c) -3   d) 3

21) The greatest negative integer is ....

  a) -2   b) -(-1)   c) 0   d) -1

22) The greatest non-positive is ....

  a) 1   b) -1   c) 0   d) -(-1)

23) The distance between the opposite of 4 and zero on the number line equals .... units

a) 4   b) -4   c) 0   d) 8

24) All the following numbers are rational except ....

a) 0   b) $\frac{3-3}{5}$ c) $\frac{2}{5}$ d) $\frac{4}{5-5}$

25) -4 .... set of counting numbers

a) belong to   b) does not belong to   c) is subset of   d) is not subset of

26) The best subset of the number -10 is ....

a) rational   b) counting   c) integers   d) natural

27) The best subset of the number 1 is ....

a) rational   b) counting   c) integers   d) natural

28) Each number in the set of integers is called ....

a) element   b) set   c) subset   d) not subset

29) The best subset of the number 0 is ....

a) rational   b) counting   c) integers   d) natural

30) $\frac{3}{5}$ .... $\frac{2}{7}$

a) <   b) >   c) =

31) $-\frac{1}{4}$ .... $-\frac{2}{9}$

a) <   b) >   c) =

32) Seif deposit 1,000 L.E. in a bank represents as ....

a) 1000   b) -1000   c) 100   d) -100

33) 0.7 .... 0.65

a) <   b) >   c) =

34) .... is lying between 3.14 and 3.2

a) 3.15   b) 3.21   c) 3.20   d) 3.22

35) The number of rational numbers lying between $\frac{2}{5}$ and $-\frac{2}{5}$ is

   a) 2   b) 1   c) 0   <u>d) infinite number</u>

36) The smallest number from the following is ....

   a) 0.11   b) 0.3   <u>c) 0.101</u>   d) $\frac{1}{\square}$

37) The greatest number from the following is ....

   a) $\frac{1}{4}$ b) $\frac{1}{3}$ c) $\frac{1}{12}$ <u>d) $\frac{1}{2}$</u>

38) 0 ....-2

   a) <   <u>b) ></u>   c) =

39) If |-99| = x , then x = ...

   a) -99   <u>b) 99</u>   c) 9   d) -9

40) |-11| > ....

   <u>a) 10</u>   b) 11   c) 13   d) 101

41) The distance between -4 and its opposite on number line is .... units

   a) 0   b) 4   <u>c) 8</u>   d) 16

42) The absolute values of opposites are ....

   <u>a) equal</u>   b) negative   c) different

43) A negative number with an absolute value greater than 10 is ....

   a) 10   b) 11   c) -9   <u>d) -12</u>

44) The absolute value of the opposite of -7 is ....

   <u>a) 7</u>   b) -7   c) 14   d) -14

45) The set of integers consists of negative numbers and .... numbers

   <u>a) natural</u>   b) counting   c) rational   d) positive

46) Which of the following is counting number ....

   a) 0   b) -1   <u>c) 1</u>   d) -2

47) $-3\frac{1}{2}$ lies between two whole numbers ....

  a) 0 and 1   b) -2 and -3   c) 3 and 4   d) -3 and -4

48) The number of integers lies between $\frac{3}{5}$ and $\frac{16}{5}$

  a) 0   b) 3   c) 2   d) infinite

49) The number of integers lies between 3.1 and 3.2

  a) 0   b) 3   c) 2   d) infinite

50) Which of the following is an algebraic expression ....

  a) $44 - 3 \times 4$ b) 3 + 7 - 0   c) 15 a - 32   d) 2 (3 - 4)

51) The number of like terms in the expression 3 + 2x + 5 is ....

  a) 1   b) 2   c) 3   d) 4

52) Which of the following are like terms ? ....

  a) 25 , 52   b) l , m   c) ab , aq   d) ab , ac

53) 2 + 3 (.................) complete to get numeric expression

  a) a   b) x   c) 20 -15   d) a + x

54) Twice the difference of a number and 5 is ....

  a) 2Y + 5   b) 2Y - 5   c) 2 (Y − 5)   d) 2 (Y + 5)

55) Yara saved n L.E. and her mother gave her 5 L.E. she will have ....

  a) n -5   b) n + 5   c) 5 - n   d) 5n

56) Nada is X years old now how old will she be after 6 years ?

  a) x - 6   b) 6x   c) 6 + x   d) 6 - x

57) 5^4 = ...

  a) 4^5 b) 4 x 5   c) 5 x 5x 5x 5   d) 5x5x 5x5x5

58) The value of the expression 3n − 2 for n = 7 is ....

  a) 14   b) 19   c) 21   d) 23

59) The first operation you perform in the expression $5(3^2 – 2) +7$ is ....

  a) add   b) multiply   c) subtract   **d) exponent**

60) The value of the expression $2X^2 – (3×4+2^3) =$ .... at $X = 5$

  a) 50   b) 30   c) 40   **d) 35**

61) $8 – 3 × 2 ÷ (4 – 2)^2 =$ ....

  a) 2.5   b) 1   c) 0.5   **d) 6.5**

62) Two cubed added to 5 squared equals = ...

  a) 2x3+5x5   b) $3^2 + 2^5$ **c) $2^3 + 5^2$**   d) $2^3 + 5^4$

63) The coefficient in the expression $6 - 3 + 5 X$ is ....

  a) 6 , 3   b) 5 X   **c) 5**   d) X

64) Number of like terms in the expression $4a + 4b + 5$ is ....

  a) 3   b) 2   c) 1   **d) 0**

65) Subtract 8 from the number k in algebraic form ....

  a) 8 - k   **b) k - 8**   c) 8 + k   d) 8k

66) Marwan has 50 L.E. he bought 3 pens each for k L.E. then the remainder is ....

  a) 30   b) 3 + 50k   **c) 50 - 3k**   d) 50 + 3k

67) Take away twice the number k from 15 is written as ....

  b) 2k – 15   b) 15 + 2k   **c) 15 - 2k**   d) $15 – k^2$

68) 5 times a number less 7 is ....

  b) 5b + 7   **b) 5b - 7**   c) 7 – 5b   d) $7 – b^2$

69) The value of the expression $5 + (X^2 – 3) =$ .... at $X = 3$

  a) 6   b) 9   c) 12   **d) 11**

70) $7 + 3 ($ .... $+ 5) - 4$ complete to get numeric expression

  a) b   b) k^3 **c) 10 - 6**   d) x + y

71) If $25 \div b = 5$, then b = ...

a) 20   b) 5   c) 40   d) 1

72) If $3X = 12$, then $\frac{1}{2} X$ = ...

a) 9   b) 6   c) 4   d) 2

73) If $y \div 2 = 8$, then $\frac{1}{4} y$ = ...

a) 8   b) 6   c) 4   d) 2

74) A number if added to 17 , the sum is 28 then the number is ....

a) 11   b) 18   c) 45   d) 18

75) A product of a number x and 6 is 42 , then x = ...

a) 6   b) 7   c) 48   d) 36

76) Which of the following is a solution of inequality $m \geq -1$?

a) -2   b) -3   c) -4   d) 0

77) All of the following are solutions of inequality $m < -3$ except ....

a) -2   b) -10   c) -5   d) -6

78) The inequality that represent the graph is ....

a) $k < -1$ b) $k > -1$ c) $k \leq -1$ d) $k \geq -1$

79) Number of solutions of inequality $s > 10$ is ....

a) 2   b) 1   c) 0   d) infinite

80) .... Is a solution of $x < 4$

a) 3.96   b) 4   c) 4.23   d) 5

81) All of the following are solutions of inequality m < -3 except ....

   a) |-4| b) -3   c) 4   d) 5

82) If 3x = 0 , then $\frac{1}{2}$ x = ...

   a) 3   b) -3   c) $1\frac{1}{2}$ d) 0

83) Mohamed has 47 pounds , his friend has less than mohamed , then his friend has ....

   a) 53   b) 47   c) 100   d) 19

84) A number is no more than 10 can be written as ....

   a) x < 10   b) x > 10   c) x ≤ 10   d) x ≥ 10

85) In the equation x = 4y + 3 , the independent is ....

   a) 4   b) x   c) y   d) 3

86) In the equation 9a + 24 = b , the dependent is ....

   a) 9   b) a   c) 24   d) b

87) 8 more than S equals T in equation is ....

   a) 8S = T   b) 8 + S = T   c) 8T = 8   d) 8 + T = S

88) M equals the product of n and 3 in equation is ....

   a) m = 3n   b) m = 3 + n   c) n = 3 + m   d) n = 3m

89) 4 times L added to 7 equals k , in equation is ....

   a) 7L + 4 = k   b) 7k + 4 = L   c) 4L + 7 = K   d) 4k + 7 = L

90) The word phrase for the equation g = 9h is ....

   a) h equals g increased by 9   b) g equals 9 times h   c) h equals 9 times g   d) g equals h increased by 9

91) In the equation y = 3 x ,if x = 5.1 ,then y would be ....

   a) 8.1   b) 53.1   c) 18.3   d) 15.3

92) The ordered pair which satisfies the equation y = x+ 1 is ....

   a) (1 , 0)   b) (1 , 2)   c) (1 , 1)   d) (2 , 1)

93) In the equation y=-2x ,y equals 8 where x = ...

   a) -2   b) 4   c) 6   d) -4

94) In the equation y = 3x+6.4 ,if x= 1,then y would be ....

   a) 6.4   b) 18.4   c) 19.2   d) 9.4

95) In the equation y = $\frac{1}{2}$ x + 1 ,if x = 12,then y would be ....

   a) 6.5   b) 13   c) 7   d) 6

96) If the equation y = x + 4 is represented by the following table , then a

   = ...

   a) 6   b) 5   c) 2   d) 8

x	0	2	3
y	4	a	7

97) The equation which represents the following table is ....

   a) y = x + 2   b) y = 2 x   c) y = 2 x + 1   d) y = $\frac{x}{2}$ + 2

x	1	2	3
y	3	5	7

Q2- Complete the following :-

1)   3548 ÷ 23 = (154) R 6

2)   984 ÷ 5 = (196) R (4)

3)   264 ÷ 65 = (4) R (4)

4)   1515 ÷ 15 = (101)

5)   The divisor in the equation 16,692 ÷ 52 = 321 is (52)

6)   If the price of 15 boxes 3,645 , then the price of each one is
      (3,645 ÷ 15= 243)

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7)   A merchant paid 7,420 L.E. to buy 53 boxes of mango , then the price of each box is (140) , and if each box contains 5 kg of mango then the price of each kg is (28)

8)   The LCM of 5 and 7 is (35)

9)   Factors of 18 are (1,2,3,6,9 and 18)

10)   A number whose prime factors are 2,3,5 is (30)

11)   The smallest prime number is (2)

12)   The prime number has (2) factors

13)   The common factor of all numbers is (1)

14)   The greatest common factor of two prime numbers is (1)

15)   (0) is a multiple of any number

16)   The GCF of 15 and 10 is (5)

17)   The LCM of 8 and 18 is (72)

18)   In the opposite venn diagram the GCF is (2)

3 (2) 5

19)   In the opposite venn diagram the LCM is (15)

3   5

20)   In the opposite venn diagram the GCF is (1)

3   2 2

21)   Yara saves 105 L.E. weekly , so she saves daily (105 ÷ 7= 15 L.E)

22) $3 (2 + 5) = 3 \times 2 + 3 \times 5$

23)   From the opposite venn diagram the expression is 10(3+7)

3 (2 5) 7

24)   The greatest common factor of 6 and 8 is (2)

25) $6 (7 + 9) = 42 + 54$

26) $3 (5 + 2) = 15 + 6$

27) $30 + 50 = 10 (3 + 5)$

28) $5 (2 + 7) = 10 + 35$

29) $9 (1 + 2) = 9 + 18$

30) $\frac{2}{5} + \frac{3}{10} = \frac{7}{10}$

31) $\frac{3}{4} - \frac{5}{8} = \frac{1}{8}$

32) $3\frac{1}{4} + 7\frac{1}{3} = 10\frac{7}{12}$

33) The smallest non negative integer is (0)

34) The opposite of zero is (0)

35) The smallest natural number is (0), the smallest counting number is (1)

36) The smallest positive integer is (1), the greatest negative integer is -1

37) The number (0) neither negative nor positive

38) The integer which just next (after) -4 is (-3)

39) The integer which just before -10 is (-11)

40) The number of integers between -4 and 3 is (6)

41) The opposite number line ,
    the integer which represents a is (-3) a -1   0   1   2   3   4

42) Set of counting numbers is (subset) of set of rational numbers .

43) Set of natural numbers is (not subset) of set of counting numbers .

44) Set of rational numbers is (not subset) of set of integers .

45) Set of integers is (subset) of set of rational numbers .

46) 0 (belongs) to set of rational numbers .

47) $\frac{15}{3}$ (belongs) to set of counting numbers .

48) |-6| (belongs) to set of natural numbers .

49) The rational number -4.7 lies between two integers (-4) and (-5)

50) $4 = \frac{4}{1}$ (write in fraction form $\frac{a}{b}$)

51) $2\frac{1}{4} = \frac{9}{4}$ (write in fraction form $\frac{a}{b}$)

52) $-1.5 = -\frac{15}{10}$ (write in fraction form $\frac{a}{b}$)

53) The opposite of $|-\frac{1}{2}|$ is $\frac{1}{2}$

54) |-2| × 0 = (0)

55) If |x| = 4 , the x = (-4) or (4)

56) $|-5| - 5 =$ (0)

57) $0 \times |-3| =$ (0)

58) $|-2| + |-13| =$ (15)

59) $|-30| \div |-5| =$ (6)

60) $|-9| >$ (8)

61) The constant in the expression $2X + 5$ is (5)

62) The number of terms in expression $5-2m-3m-4$ is (4) terms

63) The coefficient in the algebraic expression $4X + 3$ is (4)

64) $5 (4 + 6)$ is (numeric) expression

65) $2m - 3$ is (algebraic) expression

66) The verbal expression for $2m - 7$ is (the product of two and m decreased by 7)

67) The algebraic expression for a number less 7 is $(x - 7)$

68) Seif works X hours daily , then the algebraic expression for the number of worked hours monthly is (30X)

69) Write the algebraic expression for subtract 7 from the double of number X $(2x - 7)$

70) Write the algebraic expression for 8 decreased by 3 times a number M $(8 - 3m)$

71) Write the algebraic expression for twice the sum of a number and 3 $2(x+3)$

72) $2^3 =$ (8)

73) The value of expression $X + 3^2$ if $X = 1$ is (10)

74) $(17 - 11) + 3 \times 2^4 \div 2^3 =$ (12)

75) The value of expression $4 (3X + 1) =$ (16) at $X = 1$

76) Five squared = (25)

77) The two like algebraic terms in $5 - 4X + 2^3$ are (5 and 2^3

78) If the price of a piece of tart is 18 L.E.then the algebraic expression represent the price of n pieces is (18n)

79) If the base is 7 , the exponent is 5 then the exponential form is 7^5

80) $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 = 3^7$

81) Area of the square whose side length 7 cm in the exponential form is 7^2 cm²

82) The volume of cube whose edge length 5 cm is ($5^3 = 125$)

83) 5 cubed = 5^3

84) If X + 2 = 9 , then X = (7)

85) If Y − 3 = 10 , then Y = (13)

86) If 9 Z = 63 then Z = (7)

87) If $\frac{k}{8}$ = 7 , then K = (56)

88) Yara bought 3 pens for X L.E. each , she paid 15 L.E. , then X =(3x=15) x=5

89) If x + x + x = 18 , then x = (6)

90) If $\frac{X}{3}$ = 4 , then twice X = (24)

91) If k + 1 = 5 , then k − 3 = (1)

92) If m −3^2 = 1 , then m = (10)

93) The number of solutions of equation x + 3 = 5 is / are (one) solution(s)

94) The algebraic expression of subtract 3 from k is (k − 3)

95) 4k = 20 , then k = (5)

96) Seif saved X L.E. and his father gave him 6 L.E. , he will has (x+6)

97) The inequality that represents the following graph is (X ≤ 3)

98) (−4) is a solution of inequality X < −3

99) $\frac{3}{4}$ x = $\frac{3}{4}$, then 2X = (2)

100) A number if add to 7 , the sum is 13 , then the number is (6)

101) 7 more than x equals y as an algebraic equation is (7 + x = y)

102) Five times c equals d as an algebraic equation is (5c=d)

103) m equals twice n increased by 25 as an algebraic equation is (m=2n+25)

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104) S equals the product of eight and r added to 42 as an algebraic equation is **(s=8r+42)**

105) In the equation . t = 20p , the dependent is **(t)**

106) In the equation . m = 11n + 2 , the independent is **(n)**

107) In the equation y = 2 + x ,if x = 3 , then y would be **(5)**

108) The verbal phrase for Y = 3x + 1 is **(y equals the product of three and x increased by one)**

109) The verbal phrase for y + 2 = x is **(y more than two equals x)**

110) In the rule :y = 4 x, if x = 1.3 m ,then y = **(5.2)**

111) The ordered pair which satisfies the rule : y = x + 3 is **(1 , 4)**

Q3- Find the G.C.F using venn diagram :-

10 and 30   7 and 12

G.C.F = 10 $\begin{smallmatrix}2\\5\end{smallmatrix}$ 3   G.C.F = 1   7 $\begin{smallmatrix}2\\\\2\end{smallmatrix}$ 3
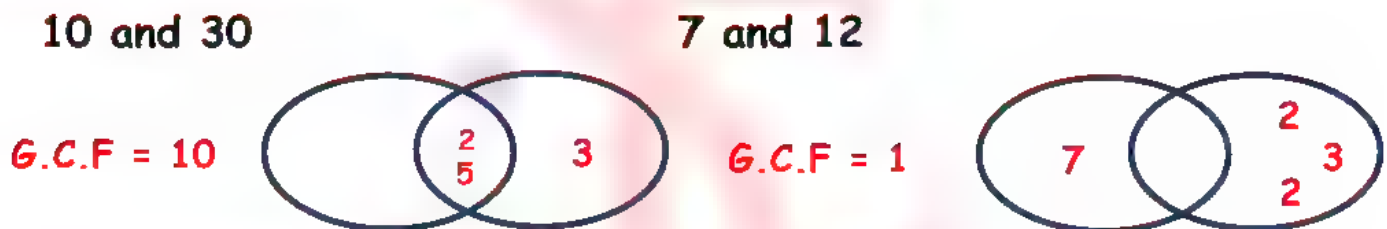
Q4- Answer the following :-

4- Yara has **24** pens and **16** rulers , she wants to put them in groups , **what the greatest number of groups** that can be made so that each group has the same number of items ? **how many pens** will be in each group ? **how many ruler** will be in each group ? and write the **numerical expression** which represents the total number of items .

24=2×2×2×3   16=2×2×2×2   The greatest number of groups = 8

The number of pens in each group =3

The number of rulers in each group =2

The numerical expression= 8 (3 + 2)

5- Use the venn diagram to find **G.C.F** & **L.C.M** of 15 and 10

3　5　2

G.C.F = 5

L.C.M = 30

6- Seif ate $\frac{1}{4}$ of the cake and Maria ate $\frac{1}{3}$ of the same cake , how much of the cake has been eaten ? and how much left ?

$(\frac{1}{4} + \frac{1}{3}) = (\frac{3}{12} + \frac{4}{12} = \frac{7}{12}) = (\frac{12}{12} - \frac{7}{12} = \frac{3}{12})$

Q5- Arrange in ascendeing order :-

4) -6 , 0 , -4 , 4 , -7 , 3

-7 , -6 , -4 , 0 , 3 , 4

5) 7 , -7 , -3 , -5 , 11 , -11

-11 , -7 , -5 , -3 , 7 , 11

6) $-\frac{1}{2}$, $-\frac{1}{3}$, -1 , $\frac{1}{4}$

-1 , $-\frac{1}{2}$, $-\frac{1}{3}$, $\frac{1}{4}$

Q6- Find two rational numbers lying between:-

3)　$\frac{2}{3}$ and $\frac{5}{6}$

$\frac{4}{6}$ and $\frac{5}{6}$ 　　× 3 ⟹　$\frac{12}{18}$ and $\frac{15}{18}$

The two rational numbers are ⟹ $\frac{13}{18}$ and $\frac{14}{18}$

4)　3.75 and 3.76

3.750 and 3.760

The two rational numbers are ⟹ 3.751 and 3.752

Q7- Complete the following tables then make the graph :-

3) The equation is Y = x + 2

x	0	1	2
y	2	3	4
(x,y)	(0,2)	(1,3)	(2,4)
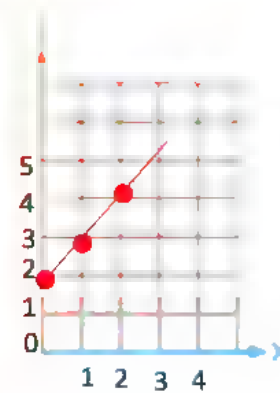
4) The equation is Y = 2x

| x	1	3	5
y	2	6	10
(x,y)	(1,2)	(3,6)	(5,10)
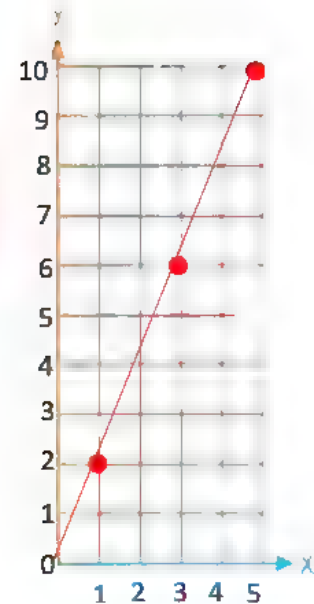
> # Part 2
> statistical

Q1- Identify which question is statistical or non statistical :-

1) How tall are you ? (Non-statistical)
2) How tall are the students in your class ? (statistical)
3) What do the students prefer to eat for lunch ? (statistical)

Q2-From the opposite graph answer the following :-

1) how many students were surveyed ? 12
2) how many students had 3 siblings ? 1
3) how many students had more than 1 sibling ? 9
4) how many students had 2 siblings or more? 9
5) how many students had less than 3 siblings? 9

0 1 2 3 4 5
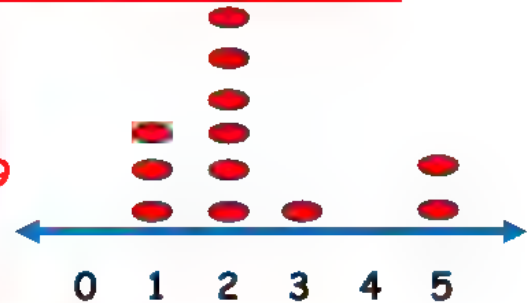
Q3-From the opposite graph answer the following :-

1) The total number of worker is 90
2) The daily salary interval has maximum
   Number of workers is (70-79)
3) The number of workers whose daily
   Salary is 90 or more = 45
4) The number of workers whose daily
   Salary is less than 120 = 85
5) The intervals having the least frequency
   Are (120-129)
6) How many workers whose daily salary at least 100 ? 30
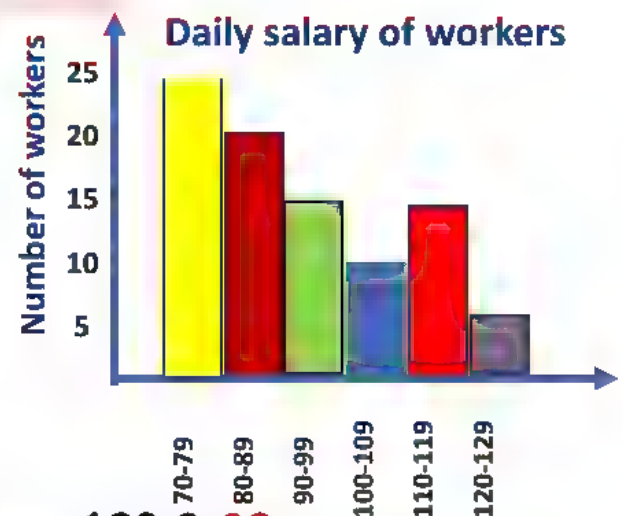
Daily salary of workers

Number of workers

25
20
15
10
5

70-79 80-89 90-99 100-109 110-119 120-129

Q4- The following data represents the ages of 30 workers in a company

marks	21	22	23	24	25	26	27	29	30
Number of students	3	5	2	6	1	4	1	3	5

a) Complete the table

b) Draw a histogram to represent data

Intervals	Frequency
21-22	8
23-24	8
25-26	5
27-28	4
29-30	5
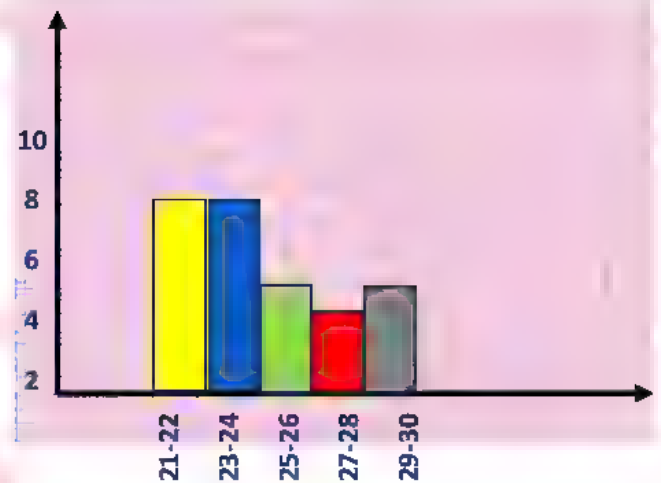
Q5- From the opposite Box plot complete :-

1) The minimum value = 11
2) The maximum value = 23
3) The median = 18
4) The lower quartile = 13
5) The upper quartile = 21

10 12 14 16 18 20 22 24
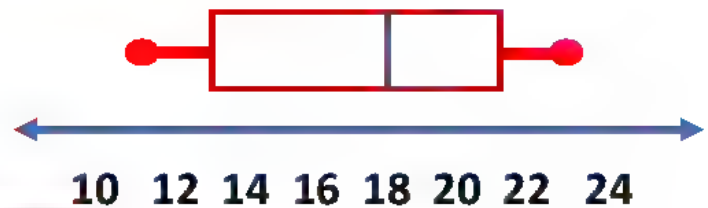
Q6- Find the 5-number summary for the following data and draw the box plot

4 , 5 , 7 , 10 , 12 , 13 , 14 , 16 , 18

The minimum = 4   the maximum = 18   the median = 12

The lower quartile Q1 = 6   the upper quartile Q3 = 15

Q7- Choose the correct answer :-

1)   Which display makes it easier to see the median ?
   a) histogram   b) dot plot   c) bar graph   <u>d) box plot</u>

2)   The mean of the data set 7 ,13 ,6 and 2 is 7
   a) 2   b) 6   <u>c) 7</u>   d) 13

3)   If the mean of 8 , 6 , x and 5 is 5 , then x = ...1
   a) 4   b) 3   c) 2   <u>d) 1</u>

4)   The balance of the data set 5 , 7 , 6 , 8 , 6 and 10 is ....
   <u>a) 7</u>   b) 5   c) 8   d) 10

5)   The average of 11,12,14,14,14,14,15, 16 and 16 is ....
   a) 11   <u>b) 14</u>   c) 13   d) 15

6)   If the mean of the marks of 5 students is 20 marks ,then the sum of
      their marks equals .... marks   100
   a) 4   b) 15   c) 25   <u>d) 100</u>

7) If the mean of the ages of Hanan and Wesam is 7 years and the age of Hanan is 8 years , then the age of Wesam is 6

   a) 7   b) 15   <u>c) 6</u>   d) 8

8) If the mean of the side lengths of a triangle is 8 cm , then the perimeter of the triangle is ....

   a) 8 cm   b) 18 cm   <u>c) 24 cm</u>   d) 15 cm

9) A set of values with two modes is called ....

   <u>a) bimodal</u>   b) trimodal   c) multimodal   d) non-modal

10) The mode of the following data set (3,4 ,5 ,3 ,5 ,7 ,5 ,9 ,5 ,2) is

   ....

   a) 3   <u>b) 5</u>   c) 7   d) 9

11) The range = the greatest value .... the smallest value.

   a) +   <u>b) -</u>   c) ×   d) ÷

12) If the values of data set start from 30 to 60, then the range of this data = ...

   <u>a) 30</u>   b) 20   c) 60   d) 90

Q8- Complete the following :-

1) The median of the values 4 , 7 , 8 , 1 and 3 is (8)
2) The median of a + 1 , a + 2 , a + 3 is 10 then a = (8)
3) The lower quartile for the set of data 5,7,9,10,12,15,20 is (7)
4) Types of statistical questions are (numerical) and (categorical)
5) The shape shows the set of data in form of intervals is (histogram)
6) The shape shows individual data is (dot plot)
7) The shape shows the median is (dot plot & box plot)
8) The shape shows number of individual data is (dot plot & histogram)
9) The shape shows lower quartile is (box plot)
10) The shape shows the five-number summary is (box plot)

11) The mean of the following data is **(10)**

$$7 \quad 8 \quad 9 \quad 10 \quad 11 \quad 12 \quad 13$$
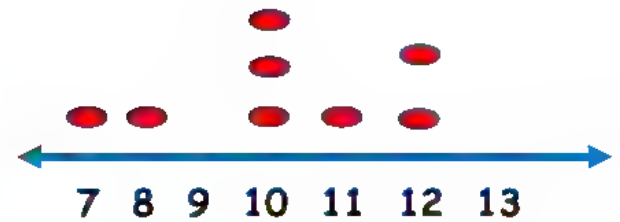
12) The balance of the data set 15 , 16 , 18 , 18 ,19 , 20 , 20 is **(18)**

13) If the mean of 8,6, x,5 is 5 then x = **(1)**

14) The average of the values 10 , 10 , 10 ,10 is **(10)**

15) The median of values 5 , 3 , 3 , 8 , 4 , 7 , 1 and 10 is **(6)**

16) The sum of seven numbers is 49 , then the mean of these numbers is **(7)**

17) If the sum of five numbers is 30 ,then the mean of these numbers is **(6)**

18) outlier are values that lie away the other values

19) The outlier value of the data set (7,46 ,48 ,49,50 ,5l ,52) is **(7)**

20) The two outlier values of this data set (31 ,205 ,207 ,200 ,201 ,206,202,209 ,1,0001) are **(31)** and **(1,0001)**

21) **(mean)** is the measure of central tendency changes more with the outlier.

22) The better measure of central tendency for data set with outlier value is **(median)**

23) **(mean)** is the better measure of central tendency for data set with no outlier value .

24) The **(mode)** is the value that occurs most often.

25) The mode of (7,10,15,7,10,13,7,15,7) is **(7)**

26) The range of the set of values 6 , 5 , 9 , 4 , 11 ,3 and 7 is **(8)**

27) If 50 is the greatest number of data set and the range = 10 'then the smallest number of this data set equals **(40)**

28) The range = **(maximum value – minimum value)**

29) The difference between the greatest value and the smallest value in data set is called **(range)**

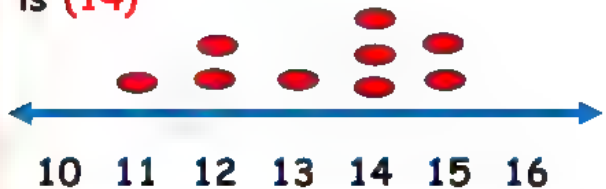**30)** (median) is the middle value of the data set

31) The median of the following data which is represented by dot plot is ...(10)

7 8 9 10 11 12 13

32) The mean of the following data equals (5)

1 2 3 4 5 6 7 8

33) The mode of the opposite data set is (14)

10 11 12 13 14 15 16

34) From the following dot plot, the best measure of central tendency (median) and its value = (13)

5 6 7 8 9 10 11 12 13 14

35) In the opposite box plot , the range = (7)

1 2 3 4 5 6 7 8

36) In the opposite data, the range = (10)

17 19 21 23 25 27 29

المراجعة رقم (6)

الترم الاول

AHMED NASJI
MATHEMATICS TEACHER
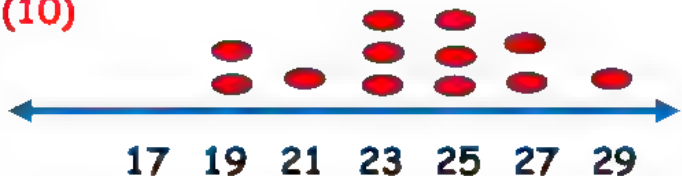
Q1: Choose the correct answer:

1 Murad has 120 crayons distribute them among 6 of his friends, how many crayons are left?

(a) 0   (b) 1   (c) 2   (d) 3

2 The common multiple of all factors is ....

(a) 0   (b) 1   (c) 2   (d) 3

3 The value of the expression $2 + 16 - 3b$ when $b = 4$ is ....

(a) 4   (b) 2   (c) 6   (d) 10

4 Laila saved n L.E. and her mother gave her 5 L.E. , she will have .... L.E

(a) $n - 5$ (b) $n + 5$ (c) $5n$ (d) $5 - n$

5 The following expression represents the greatest number of bags can be made from potatoes and carrot respectively: $(6 \times 6) + (6 \times 3)$ then the total number of carrots in all bags is ....

(a) 6   (b) 36   (c) 18   (d) 9

6 The greatest common factor of 6 and 8 is ....

(a) 4   (b) 1   (c) 2   (d) 3

7 The smallest non-negative integer is ....

(a) -1   (b) 1   (c) 0   (d) -10

8 An integer included between -4 and 2 is ....

(a) -1   (b) 2   (c) 3   (d) -5

9 The number of integers on the number line is ....

(a) 1   (b) 2   (c) 100   (d) infinite

10 The first operation or exponent you perform in $3 \times 5 + 3(2^3 - 5) - 4 \div 2$

(a) parantheses   (b) plus   (c) multiply   (d) exponent

11 The best graph to represent the number of students absent on a sunday

(a) bag graph   (b) dot plots   (c) histogram   (d) otherwise

12 The lower quartile for the set of data : 72, 64, 79, 63, 60, 75, 70, 61, 77 is ....

(a) 61   (b) 70   (c) 62   (d) 76

13 The absolute value of 6.3 is ....
(a) 6.3
(b) -3.6
(c) -6.3
(d) 3.6

14 Youssef can read more than 7 books monthly. Which inequality represent the number of books that Youssef read monthly ?
(a) $x > 7$
(b) $x < 7$
(c) $x \leq 7$
(d) $x \geq 7$

15 All of the following are solutions of inequality $x > -2$ except ....
(a) -1
(b) -3
(c) 0
(d) 1

16 In the equation : $y = 3x + 1$, the ordered pair (2, a) satisfies the equation, then a = ...
(a) 5
(b) 6
(c) 7
(d) 8

17 .... are numerical data
(a) blood type
(b) birthplace
(c) age
(d) preferred colors

18 What is your favorite school subject? is a .... question.
(a) Statistical
(b) Non-statistical

19 The mean of the values (4, 9, 7, 1, 1, 2) is ....
(a) 4
(b) 2
(c) 3
(d) 24

20 The number of integer numbers lying between $\dfrac{3}{5}$ and $\dfrac{16}{5}$ is ....
(a) 0
(b) 2
(c) 3
(d) infinite

21 The equation which represents the table

x	1	2	3
y	3	5	7

(a) $y = x + 2$
(b) $Y = 2x$
(c) $y = 2x + 1$
(d) $y = 2x - 1$

22 The smallest counting number is ....
(a) 0
(b) 1
(c) 3
(d) -1

23 Eslam is x years old now , how old will he be after 6 years ?
(a) $x \div 6$
(b) 6x
(c) $x + 6$
(d) $x - 6$

24 Murad and farida have 70 pounds, if what Murad has is k pounds, then what farida has is .... pounds.
(a) 70 + k
(b) 70 - k
(c) 70 k
(d) 70 ÷ k

25 The constant in the expression 3y + 5 is ....
- a) 3
- b) 5
- c) 3y
- d) 3y + 5

26 If the mean of the scores of five students is 20, then the sum of their
- a) 4
- b) 25
- c) 15
- d) 100

27 If the largest value is 18 and the least value is 6, then the range is ....
- a) 12
- b) 24
- c) 3
- d) 78

28 7 Cube = ...
- a) 7 x 7
- b) 3^7
- c) 7^3
- d) 49

29 If 4n = 12, then 6n = ...
- a) 4
- b) 12
- c) 18
- d) 3

30 Which display makes it easier to see the median?
- a) histogram
- b) box plot
- c) dot plot
- d) bar graph

31 The larger absolute value, the .... zero.
- a) closer to
- b) farther to
- c) equal to
- d) otherwise

32 From the opposite venn diagram, the expression is ....
- a) 10 (6 + 35)
- b) 3 (10 + 7)
- c) 7 (10 + 3)
- d) 10 (2 + 7)

33 13,510 ÷ 23 = 587 R ....
- a) 8
- b) 9
- c) 7
- d) 6

34 If the upper quartile of the values: k + 2, k + 3, k + 5, k + 4, k + 6, where k is a positive integer is 15.5, then k = ...
- a) 8
- b) 9
- c) 7
- d) 10

35 Which of the following is not a solution of k > 2.5 ?
- a) 3
- b) 2.7
- c) 2.49
- d) 4.9

36 4 and .... are two relatively prime numbers.
- a) 12
- b) 8
- c) 9
- d) 28

37 The LCM of two relatively prime numbers is ....
- a) 0
- b) 1
- c) their sum
- d) their product

38 If 63 ÷ k = 9, then k = ...
- (a) 8
- (b) 9
- (c) 7
- (d) 6

39 Mohamed has 47 L.E, his friend Mina has less money than Mohamed,then

Mina may has .... L.E
- (a) 53
- (b) 47
- (c) 100
- (d) 19

40 The number of terms of the expression: 5 - 2m - 3m + 4 is ....
- (a) 5
- (b) -2
- (c) -3
- (d) 4

41 A negative number with an absolute value greater than 13 is ....
- (a) 10
- (b) -9
- (c) 17
- (d) -14

42 If the values of data set start from 40 to 80, then the range of this data = ...
- (a) 60
- (b) 40
- (c) 120
- (d) 80

43 In the equation: 1,600 ÷ 25 = 64, the divisor is ....
- (a) 1,600
- (b) 64
- (c) 0
- (d) 25

44 If the median of a +1, a +2, a + 3 is 10, then a = ...
- (a) 1
- (b) 2
- (c) 3
- (d) 4

45 The smallest natural number is ....
- (a) -1
- (b) 0
- (c) 1
- (d) 2

46 If the mean of 8, 6, x, 5 is 5, then value of x = ...
- (a) 1
- (b) 2
- (c) 3
- (d) 4

47 Which ofthe following is equivalent to the expression :5 x + 3 + x ?
- (a) 6x + 2
- (b) 8x + x
- (c) 3(2x + 1)
- (d) 9x

48 The smallest non-negative integer is ....
- (a) 0
- (b) 1
- (c) 2
- (d) -1

49 -5 is located to the right of the number .... on the number line.
- (a) -6
- (b) 4
- (c) -4
- (d) 6

50 All integers are .... numbers
- (a) counting
- (b) natural
- (c) even
- (d) rational

51 The sum of any two opposite numbers is ....
- (a) 1
- (b) 2
- (c) 0
- (d) -1

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52 If the sum of a set of values is 36, and the mean of these value is 4, then the number of these value is ....
   (a) 6
   (b) 4
   (c) 9
   (d) 36

53 The set of counting numbers .... the set of natural numbers.
   (a) belong to
   (b) subset to
   (c) not belong to
   (d) not subset to

54 The distance between the opposite of 4 and 0 is ....
   (a) -4
   (b) 4
   (c) 0
   (d) 8

55 The number of rational numbers lying between $\frac{3}{5}$ and $\frac{4}{5}$
   (a) 0
   (b) 2
   (c) 3
   (d) infinite

56 Twice the difference of a number and 5 is ....
   (a) 2y + 5
   (b) 2y - 5
   (c) 2(y + 5)
   (d) 2 (y - 5)

57 The inequality representing negative numbers are ....
   (a) y > 0
   (b) y < 0
   (c) y ≤ 0
   (d) y ≥ 0

58 The .... will be the best choice as a measure of central tendency in the opposite figure.
   (a) mean
   (b) median
   (c) range
   (d) both mean & median

59 $2\frac{3}{4}$ + ... = $5\frac{1}{2}$
   (a) $2\frac{3}{4}$
   (b) $2\frac{1}{2}$
   (c) $3\frac{3}{4}$
   (d) $3\frac{1}{2}$

60 "m equals the product of n and 3" in equation is ....
   (a) m = 3n
   (b) m = 3 + n
   (c) n = 3m
   (d) n = m + 3

61 .... is lying between 3.14 and 3.2
   (a) 3.15
   (b) 3.21
   (c) 3.20
   (d) 3.22

62 A .... does not have vertical axis.
   (a) dot plot
   (b) bar graph
   (c) histogram
   (d) double bar graph

63 The outlier of the following value (2, 5, 54, 3, 8, 6) is ....
   (a) 8
   (b) 2
   (c) 54
   (d) none

64 .... is a solution of $x < -1$

(a) 0   (b) 1   (c) -2 (d) 3

65 The values (5, 3, 2, 5, 2, 7) have ....

(a) no mode   (b) one modes   (c) two modes   (d) three modes

66 The oppsite of $|-5|$ is ....

(a) 5   (b) -5   (c) 0   (d) otherwise
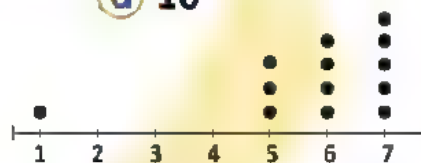
67 In the algebraic expression : $5x - 4 + 5m + 3$, the two like terms are ....

(a) 3 and 5m   (b) 3x and 5m   (c) 3 and - 4   (d) 5x and 3

68 The distance between -5 and its opposite on the number line is .... unit(s).

(a) zero   (b) -5   (c) -10   (d) 10

69 The .... will be the best choice as a measure of central tendency in the opposite figure.

(a) mean   (b) median   (c) range   (d) both mean & median

70 .... have a horizontal axis.

(a) bar graph   (b) histogram   (c) box plot   (d) all of the previous

71 .... is neither a positive nor negative number.

(a) -1   (b) 1   (c) 0   (d) 2

72 If the range of a set of values is 11 and the smallest value is 7, then the largest value is ....

(a) 4   (b) 18   (c) 77   (d) 70

73 If the mode of these value 5, 7, 2, 9, 5, 7, $x + 1$, 3 is 7 then $x =$ ....
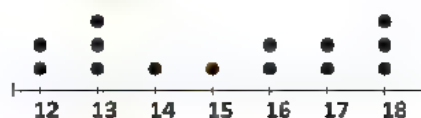
(a) 7   (b) 5   (c) 6   (d) 4

74 Number of solutions of inequatity $x > 10$ is ....

(a) 0   (b) 1   (c) 2   (d) infinite

75 If the mean of the values 3, 9, 4, x, 8 is 6, then the value of x is ....

(a) 6   (b) 4   (c) 8   (d) 3

76 The .... will be the best choice as a measure of central tendency in the opposite figure.

(a) mean   (b) median   (c) range   (d) both mean & median

AHMED NASR
MATHEMATICS TEACHER

Q2: Complete the following:

1. In 3^8: 3 is called .... and 8 is called ....

2. The value of the expression 3 (2 h - 3) + 2 at h = 2.5 is ....

3. Six squared = ...

4. Write inequality that represents all values less than -5 ....

5. In the rule: y = 4 x, if x = 1.3, then y = ...

6. Write inequality that represents counting numbers

7. If the range of a set is 20 and the smallest value is 9, then the largest values ....

8. The number of integers between - 5 and 2 is ....

9. Opposite numbers on a number line have the .... absolute values.

10. The number just come before - 9 is ....

11. The GCF of two prime numbers is ....

12. 5 x (........ + ...) = (......... x 2) + (.......... x 4)

13. All prime numbers are odd except ....is an even number

14. The common multiple of all numbers is ....

15. Double x added to 4 equals y as algebraic expression is ....

16. The smallest non-negative integer is ....

17. Range = ...

18. The greatest non-positive integer is ....

19. Marwan read at least 5 books ,then Marwan may be read .... book[s]

20. The verbal form of "2 x + 3" is ....

21. Twice the sum of a number and five is ....

22. The least common multiple of the two relatively prime number is ....

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23 The outliers in the set of values 5, 18, 3, 4, 6, 8 is ....

24 The integer that express " move forward 6 steps" is ....

25 .... and .... are affected by the presence of outliers.

26 If the rule is "Add 9", the equation .... so, if x is 4 then the output is ....

27 The like terms in the expression : $2x + 3x + 3$ are ....

28 The smallest positive integer number is ....

29 - 6 in form of fraction is ....

30 Set of counting numbers .... to set of natural numbers

31 The constant in the expression $3y + 2x - 5$ is ....

32 If $384 \div 16 = 24$, then the dividend is ....

33 Range cannot be found by using ....

34 The number just come before - 9 is ....

35 Set of rational numbers .... to set of integer numbers.

36 Murad has 120 crayons distribute them among 6 of his friends, how many left? ....

37 The number - 1.5 in fraction form is ....

38 If the range of a set is 25 and largest value is 52, then smallest value is .....

39 The common factor of all number is ....

40 The algebraic expression for "a number less 7', is ....

41 Write inequality that represents non-negative numbers ....

42 The median of the values 5, 8, 10, 2, 7 is ....

43 .... data is written in form of words

44 Do you like the red color? is a .... data

45 Represent $x \leq 2$ (x is an integer) on number line:

$$-5 \quad -4 \quad -3 \quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5$$
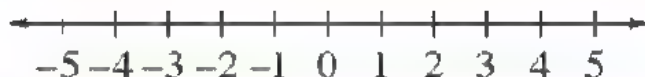
Q3: Answer the following:

1 Karim 48 pencils and 18 crayons. What is the numerical expression of the greatest number of sets that can be made so that all sets include the same number of items?

2 The two numbers represented in the venn digram are .... and ....
- The common prime factors of the two numbers are ....
- The GCF of the two numbers is ....
- The LCM of the two numbers is ....
- Are the two numbers relatively prime number?
(Yes or No)

(Venn diagram: left circle 5, overlap 2 3, right circle 7)
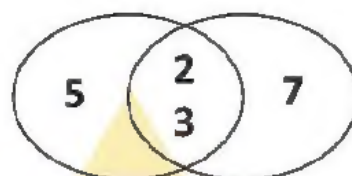
3 Use venn digram to find GCF and LCM of :
a) 15 and 10   b) 24 and 18

4 Write two rational numbers lying between each of the following pairs of numbers:
a) - 5.1 and 5.2   b) $\frac{3}{5}$ and $\frac{5}{7}$

5 Arrange the following in descending order:

$$7.5 \ , \ -2\frac{1}{3} \ , \ -\frac{8}{9} \ , \ \left| -1 \right| \ , \ \left| -3.5 \right|$$

6 Write verbal expression for each of the following algebraic expression:
a) 3(m + 4)   b) 8 - 3n   c) $\frac{3}{5}$ y + 5

7 Write an algebraic expression for each of the following verbal expressions:
a. The quotient of a number by 8 is increased by 12 is ....
b. Twice the sum of a number and three is ....

8 Use order of operations and exponents to simplify each of the following expressions.
a) $8 + 4^2 - 5 + 6 (60 \div 20)^2$ b) $4^2 + 5 (b^2 - 3)$ for b = 2

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8 Sandy has 300 L.E, her weekLy pocket money she spends 25 L.E. daily.

   a. The algebraic expression represent that is ....

   b. The remained money after 4 days is ....

   c. The remained money by the end of two weeks is ....

9 Check the following expressions where each pair is equivalent or not.

$$\boxed{\text{Use two values for x from your own}}$$

   a) $x + 5$ and $3(x + 2) - 2x - 1$ b) $3 + 2x$ and $3 + 2(x + 3)$

10 Solve each of the following equations:

   a. $16 = n - 3$ b. $70 = 50 + t$ c. $3x + 8 = 29$

11 Write the eqaution that represents the following model, then find the value of x:

   - Equation is ....

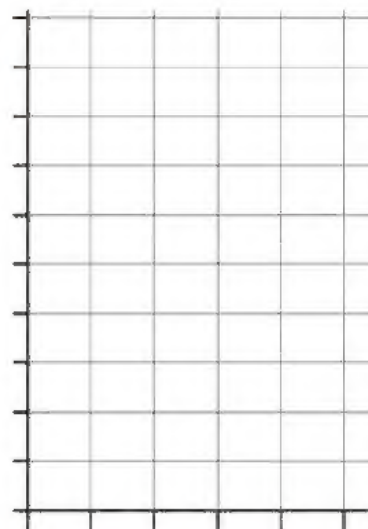   - Value of x = ...

12 Name 3 solutions of each inequalty. Then graph the inequality on a number line in the set of integers:

   a) $X \leq 6$ b) $Y \geq -2$

13 Complete the following tables, then make the graph.

The equation: $y = 3x - 3$

x	1	2	3	4
y				
(x , y)				

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45 Draw the box plot for the following data:

5 , 7 , 13 , 11 , 2 , 1 , 2 , 14 , 16 , 10 , 3

Then find: Min - Q1 - Median - Q3 - Max

The following table shows the marks of a group of students in an exam

Marks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No. of students	2	1	3	1	1	3	1	2	1	1	2	1	2	1	3	4	2	1	3	4

a. Use a suitable intervals to draw a frequency table.

b. Represent the frequency table using histogram.

Murad saves 120 pounds every month, so if the amount he saves in

(x) month is (y) pounds, then

a. The equation that represent this situation is ....

b. The independent variable is .... the dependent variable is ....

c. what Murad saves in a year is ....

The following table shows the daily wages of 50 workers of a company.

Sets	120 - 129	130 - 139	140 - 149	150 - 159	160 - 169
Frequency	8	10	16	12	4

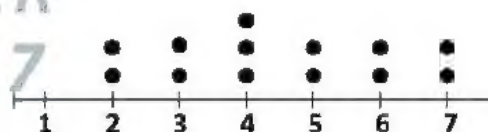Draw the histogram for this distribution.

Answer the following by using the opposite dot plot find :

a) The mean   b) The median

c) The range   d) The mode

اللهم اجعل هذا العمل خالصا لوجهك الكريم
واكتب له القبول والنفع يا كريم يا وهّاب.

كيفية طباعة صفحات معينة من ملف معين
مثلا ازاى نطبع الصفحات من صفحة 4 الى صفحة 9

خطوة 1

خطوة 2
اختيار اسم الطابعة بتاعتك

خطوة 3
كتابة الصفحات المراد طباعتها
نكتب رقم 4 ثم نكتب الشرطة دي – ثم نكتب 9

خطوة 4
اختيار نوع الورق

خطوة 5
اختيار A4

خطوة 6